



POLICIES AND PROCEDURES MANUAL

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INTRODUCTION TO THE PHARMACOLOGY & TOXICOLOGY GRADUATE PROGRAM

Admission to the Department of Pharmacology & Toxicology Program is through the Biological Chemistry Program, and the policies of this manual pertain to students who have formally entered the Department of Pharmacology & Toxicology in their second year. The Department of Pharmacology & Toxicology offers a Ph.D. program through the Graduate School of the University of Utah. It is the goal of the program to prepare students to function independently as scientists in a variety of settings including academic, pharmaceutical, and biotechnology research laboratories, as well as non-laboratory, science-related professions such as scientific writing, law, and business fields. This goal is accomplished through formal didactic courses, seminars and journal clubs, laboratory research rotations, and dissertation research. Every attempt is made by the faculty to help the student complete the program in a timely fashion. Typically, students graduate within 5 years of entering the program, although it is appreciated that the nature of some projects and approaches requires a longer time commitment for full completion of the dissertation work.

I. OVERVIEW OF MAJOR EVENTS FOR INCOMING STUDENTS FROM THE BIOLOGICAL CHEMISTRY PROGRAM

First Year- See policies and procedures for Biological Chemistry/Molecular Biology Program.
(<http://www.bioscience.utah.edu/students/first-year.php>)

Second year – Fall

Coursework	<i>PHTX 7113; PHTX 7114; Professional Skills</i>
Seminars	<i>(PHTX 7690 – if needed)</i>
Journal Club	<i>1st-year rotation report seminar</i>
Begin Dissertation research	

Second year – Spring

Coursework	<i>PHTX 7211; PHTX 7221; Statistics (BIO6500 or PSY6250); Abstracts for Prelim due April 30,</i>
Seminars	<i>schedule defense by end of June</i>
Journal Club	

Second year – Summer

Seminars/other	<i>Oral Qualifying Exam</i>
Dissertation research	<i>Choose dissertation committee, prepare proposal</i>

Third year -- Fall

Coursework/other	<i>Fulfill teaching requirement</i>
Dissertation research	
Finish any core courses/electives	

Third year – Spring

Seminars	<i>Dissertation proposal seminar presentation</i>
Other	<i>Fulfill teaching requirement</i>
Dissertation research	

Fourth-Fifth year

Other

Fulfill teaching requirement

Seminar/Dissertation research

Dissertation defense

II. GRADUATE STUDENT FUNDING

A. Stipend

Admission to the Ph.D. program includes a stipend (\$27,000 as of 7/1/16) plus the cost of individual health insurance for a 12-month period. Stipend support for the first year derives from the Combined Degree Program, whereas stipend support during the student's dissertation research derives from the mentor's research funding (please see item C. for additional details).

B. Outside Employment

The stipend above is considered a livable wage, and students are therefore strongly discouraged from engaging in employment outside the Department. If a student is employed outside the Department, the GTC or the student's Dissertation Committee will monitor whether such employment interferes with the expectations of the program regarding the student's progress in courses and research work and in the amount of time the student is expected to spend in research and service. If the GTC or the Dissertation Committee determines that outside employment is interfering with the student's progress, the student may be asked to reduce their outside employment or to leave the program.

C. Stipend Support During Dissertation Research

Stipend support for the period in which the student is conducting dissertation research is the responsibility of the student's faculty mentor and is normally derived from research grants. No Departmental funds are available for this purpose. Normally, the student will select the laboratory in which to pursue dissertation research in summer between the first and second year (see "Choice of Dissertation Advisor" below), and the student should verify that stipend support will likely be available from the mentor for the duration of the project.

D. Supplement to the Graduate Student Annual Stipend Program

To encourage graduate students to apply for non-departmental support, the Department allows students who are awarded a competitive individual fellowship or a minority supplement to supplement the standard graduate stipend up to \$5,000. Some fellowships do not allow stipend supplementation, and students should be aware of such limitations. The following conditions apply to stipend supplementation:

- 1) Only extra-departmental sources of funding can be used to receive a stipend supplement.
- 2) If a fellowship award is less than \$5000, then the supplement is only for the amount of the fellowship award.
- 3) A student receiving a fellowship can choose between being awarded a supplement to his/her stipend or a travel award of up to \$5,000 to visit a laboratory or to attend a scientific meeting. The student is restricted to the travel award if the organization funding the fellowship does not permit stipend supplementation.
- 4) The funds allotted for supplementing the stipend or for a travel award should be used during the period covered by the fellowship.
- 5) Any travel award is regulated by the policy of the University regarding travel.

E. Tuition

Tuition for graduate students (i.e. the Tuition Benefit Plan) is paid by the University of Utah Graduate School with the following conditions:

1) The student must be enrolled for 9-12 semester hours of graduate coursework (5000 level or above) in the Fall and Spring semesters. Students covered by the **Tuition Benefit Plan (TBP)** through the graduate school and who are classified a Graduate Research Assistant (i.e. RA; those paid off a faculty member's grant; typically those students in and beyond their second year) can only register for a maximum of 11 semester hours in the Fall and Spring semesters. Graduate RA students who are eligible to receive Tuition Benefit payments must also register for 3 Thesis Research credits during the summer.,
Repeat: The Graduate School will NOT pay for more than 11 credits in either the Spring or Fall semester or more than 3 credits in the summer for students whose classification is a Graduate Research Assistant (RA; i.e. if you are paid off your mentor's grant). If the student wishes to enroll in more credits, he/she will be financially responsible for the classes. Tuition support for such instances should be discussed by the student, the mentor, and the Department Chair.

2) The student must be receiving support from the mentor's research funding of at least \$27,000 per year.

The Graduate School will NOT pay tuition if the student receives a fellowship that includes tuition support. When applying for external fellowships/grants, the student should be sure to confirm what tuition assistance is included/possible with the grant. Students are expected to request such support in the grant/fellowship budget if it is available.

At present, the policy of the Graduate School is to provide tuition payments for only five years, with the exceptions noted below. Tuition for students beyond five years will be not be paid by the Department, and is the responsibility of the student and/or mentor. Students still enrolled beyond the fifth year need only register for three credit hours per semester (PHTX 7970, Continuing Registration PhD) to retain full time status and to minimize tuition obligations.

Exceptions: Students entering with an MS (or other advanced) degree from *another University* will receive only 4 years of tuition support from the University of Utah. Students entering with an MS (or other advanced) degree from the *University of Utah* will receive only 3 years of tuition support for the PhD from the University of Utah.

Students defending a dissertation in summer semester should register for 3 credit hours of PHTX 7990.

Important note: (from the guidelines for the Graduate Tuition Benefit in the Graduate School) **Out-of-state, non-international graduate students who receive a tuition benefit MUST apply for Utah residency upon fulfilling sixty (60) semester credit hours at a regionally accredited Utah higher education institution. Credit hours for graduate-level courses 6000 and above shall be multiplied by 1.5 in calculating the required 60 semester credit hours (i.e. you only need 40 hours of graduate level credit). A student's ability to establish residency will not affect receipt of a tuition benefit. (For the complete Code on Utah residency, go to: http://admissions.utah.edu/apply/residency/institutional_policy.php). HOWEVER, the TBP will only cover tuition at the in-state rate. Therefore, if the student has not been granted Utah residency and registers for classes billed at the out-of-state rate, THE STUDENT IS FINANCIALLY**

RESPONSIBLE for the difference in tuition. It is therefore imperative that students CONFIRM that they have, in fact, been granted in-state status (you can access your classification through the Campus Information System).

III. GRADUATE STUDENT CURRICULUM

A. Course Registration

The University of Utah "Class Schedule Student Handbook" is available in the lobby of the Olpin Student Union Building approximately 3 months before each semester begins. The Class Schedule also is available on-line at: <http://www.utah.edu/students/catalog.php> .

Registration materials are e-mailed to students informing them of their assigned registration dates. Registration must be completed by the assigned date or a late registration fee is charged to the student (the late fee is the responsibility of the student).

NOTE: All official university correspondence is done via e-mail through the student's U of U e-mail address. All official department correspondence also occurs via this route. It is therefore imperative that students check their official U of U e-mail daily.

Nine credit hours per semester is considered full-time enrollment. The graduate school tuition waiver will cover 9-11 credit hours as described above. Because University allocation of funding to the Department is contingent upon student enrollment hours, **students receiving the Graduate School Tuition waiver should always register for the maximum number of credits covered by their TBP.**

Continuing students NOT being paid off of their mentors grant (such as from accounts defined as Activities) do not qualify as an RA. They also are NOT required to register for summer semester UNLESS they intend to defend their dissertation that semester or if they have to demonstrate continuous registration for student housing, foreign student visa status, or fellowship validation. In such instances, the student must register for the minimum of 3 credit hours.

Students DO NOT need to register for the summer semester to maintain health insurance coverage.

Students who have passed their qualifying exam (see below) must register for 9-11 credit hours of PHTX 7970 (Thesis Research: Ph.D.) in each of the Fall and Spring semesters if they are on the TBP.

B. Program Curriculum:

The objectives of the curriculum are 1) to provide a strong background in modern-day, basic biomedical sciences that provides the underpinning for pharmacology and toxicology, 2) to train students in the fundamental concepts of pharmacology and toxicology as a discipline, and 3) to facilitate more specialized training as needed for the dissertation research. Coursework is normally completed during the first two years.

The required curriculum begins with the basic requirements of the Biological Chemistry Program in Year 1 (see: <http://www.bioscience.utah.edu/students/first-year.php>).

The Pharmacology & Toxicology Degree Program core course requirements are:

- Essentials of Pharmacology and Toxicology(PHTX 7113); 2 sem hr, Fall Semester, First Session, Year 2
- Principles of Toxicology, (PHTX 7114); 2 sem hr, Fall semester, Second Session, Year 2
- Pharmacology I (PHTX 7211); 2 sem hr, Spring semester; First Session, Year 2
- Pharmacology II (PHTX 7221); 2 sem hr, Spring semester; Second Session, Year 2
- Professional Skills (PHTX 7690); 2 sem hr, Fall semester, Year 2
 - **Note:** if a student has entered through the Biological Chemistry Program, the student will have already completed the requirement for this course.
- Research Ethics (PHIL 7570; cross-listed as MBIOL 7570); 1 sem hr, Fall semester, Year 1
- Statistical Methods (various – discuss with GTC); 2 sem hr, Spring semester, Year 2 or 3.

In addition, the program requires **one** advanced pharmacology and toxicology course from the list below:

- Analytical Toxicology (PHTX 7620); Spring*; 2 sem hr
- Mechanisms of Toxicology (PHTX 7630); Spring*; 2 sem hr
- Advances in Endocrine Pharmacology (PHTX 7100); Spring*, 2 sem hr
- Advanced Topics in Cardiovascular Pharmacology (PHTX 7410); Spring*; 2 sem hr
- Biochemical Mechanisms of Signal Transduction (PHTX 7500); Spring*; 2 sem hr
- Neuropharmacology (PHTX 7270); Spring*; 2 sem hr
- Advances in Neuropharmacology (PHTX 7280); Spring*; 2 sem hr
- Applied Genomics (PHTX 7777 & 7778); Spring; 1.5 sem hr each

A course semester followed by an asterisk (e.g., Spring*) indicates that the course is not offered every year. Check the course catalog to determine the availability of the course or check with the course master to determine when it is to be offered.

Depending on the student's interests, other courses may be taken at any time. Some of the courses taken by graduate students in Pharmacology and Toxicology include:

- Cell Biology II (HGEN 6481); Spring, 1.5 sem hr
- Neuroanatomy (ANAT 7710 / NEUSC 6060); yearly Fall; 3 sem hr
- Gene Expression (MBIOL 6440); yearly Fall; 1.5 sem hr
- Basic Immunology (PATH 7330); yearly Fall; 3 sem hr
- Cellular and Molecular Neuroscience (NEUSC 6040); yearly Fall; 4 sem hr
- Structural Methods (BLCHM 6430); Fall; 1.5 sem hr

NOTE: As per the Graduate Student Handbook for the Graduate School at the University of Utah, “Candidates for graduate degrees are required to maintain a 3.0 or higher GPA in course work counted toward the degree. A grade below C- is not accepted for credit toward a graduate degree. *Some departments further restrict C grades.*” **The Department of Pharmacology and Toxicology requires graduate students to complete all required core and elective courses with a grade of B or better.** Students will be allowed to repeat a course only once. Students failing to pass the repeated course will be dismissed from the program.

The one exception to the requirement that a core course must be repeated if the student does not get a B or better is the Graduate Pharmacology class (PHTX 7211/7221). In the case that a student does not get an overall grade of B- or better in PHTX 7211 and/or PHTX 7221, they will be given an

“incomplete” (I) for that course. If the student successfully passes the comprehensive, written exam described below, the grade on that comprehensive exam will be recorded as the grade of record for PHTX 7211/7221. If the student does not successfully pass the comprehensive written exam, the original grade received in PHTX 7211/7221 will be recorded as the grade of record.

If there are any exams in PHTX 7211/7221 that score less than B-, the student will meet with the Coursemaster and responsible faculty member(s) to discuss the shortcomings of the student’s answers. The faculty may, at their prerogative, assign additional reading/exercises to the student to facilitate the student’s understanding of the material. Approximately one-week later, the student will be given an oral or written exam (one or more questions, as necessary) by the responsible faculty member(s) and the Coursemaster to assess whether the student now has sufficient mastery of the material. The student’s grade(s) on the new exam will be recorded as the new grade(s) for that exam. If the repeated examination is not passed with a B- or better grade, the student will not be admitted to candidacy for the Ph.D. degree, as per the policy of the Graduate School at the University of Utah. The student may petition the GTC, in consultation with his/her mentor, to pursue a terminal Master’s Degree.

A sample curriculum is shown below (**required courses in bold**):

The First Year is directed by the Biological Chemistry Combined Program (website). Questions about the first year should be directed to the Biological Chemistry Office. To view the first year program, please go to: <http://www.bioscience.utah.edu/students/first-year.php>

Fall Semester (second year)

Essentials of Pharmacology & Toxicology (PHTX 7113)	2 sem hrs
Principles of Toxicology (PHTX 7114)	2 sem hrs
Biomed. Sci. / PHTX elective	0-3 sem hrs
Journal Club (PHTX 6710 or 6720)	0-1 sem hr
Seminar (PHTX 7890)	0-1 sem hr
*Research (PHTX 7920)	<u>0-2 sem hr</u>
	11 sem hrs

Spring Semester (second year)

Pharmacology I (PHTX 7211)	2 sem hrs
Pharmacology II (PHTX 7221)	2 sem hrs
Statistics (BIO6500 or PSY6250)	2 sem hrs
Advanced PHTX Elective	2-3 sem hrs
*Journal Club (PHTX 6710 or 6720)	0-1 sem hr
*Seminar (PHTX 7890)	0-1 sem hr
*Research (PHTX 7920)	<u>0-3 sem hr</u>
	11 sem hrs

* Students should be registered for **12 (first year) or 11 (subsequent years) credit hours** each Fall and Spring semester. To bring the total number of hours to the maximum covered by the TBP, students should register for as many research hours (PHTX 7920 until the preliminary exam is passed and then PHTX 7970 thesis research) as is necessary after all other coursework registration requirements have been met. If in a given semester the coursework requirements place the student at 11 hours, he/she should not

register for additional hours. In some cases, this may mean that the student will not register for seminar (PHTX 7890) or Journal Club (PHTX 6710/6720); however, **students are still expected to participate fully in these events, even if not registered.**

** SUMMER: Students defending a dissertation must register for 3 credit hours of PHTX 7970 or 7980. Other students classified as RAs (paid by a mentors grant) and covered by the Tuition Benefit Plan must also register for 3 credits in the summer semester.

C. Petition for Prior Class Credits to Count Toward Degree

A student may petition for prior class credits to apply toward the fulfillment of required coursework. The student should write a letter to the GTC listing the course, the text used in the course, the number of credit hours given for the course, the grade received and a brief description of the course content. If available, the class syllabus should be included. **The GTC will determine whether the course can be counted toward the degree based on the relevance of the topic to the student's training in Pharmacology and Toxicology, the demands of the course being commensurate with graduate course-level requirements, the course material covered being current, and the student's performance in the course being satisfactory. Approval will be granted by majority vote of the GTC.**

D. Research Rotations

Four research rotations will be performed as per the Biological Chemistry Program within the first year.

Once the student has identified a laboratory in which to undertake a dissertation project, the student confirms with the mentor that adequate supervision, space, stipend support, and a project are available. The student then begins work on the project as soon as possible so that the project is underway before second year classes begin.

E. Seminars and Student Presentations

1. *Seminar Attendance:* The Pharmacology & Toxicology Department hosts seminar speakers on a rotational basis, except during holiday breaks. Occasionally, more than one seminar will be held in one week. ***It is mandatory that graduate students attend these seminars.*** Grades (credit / no credit) for Research Seminar (PHTX 7890) are based on attendance at the seminars and are the responsibility of the Seminar Committee Chair.

2. *Student Seminars:* In the Fall semester or early in the Spring semester of the second year, each student will present an hour-long research seminar on the research rotations completed during the first year. This seminar will be given during the regular Departmental Seminar period, and is attended by the Department faculty, post-doctoral fellows, and students. This seminar will cover each of the rotations completed, and also should provide some integration across the four rotations. In general, these talks will follow a meeting presentation format, with an introduction, discussion of methods, results obtained and overall discussion for the presentation on each of the rotations, **and then end with the integrative section.** Students are **encouraged** to practice the entire talk with **all four research rotation mentors** before presenting the final talk to the Department. The research rotation mentors are expected to assist the student in the preparation of the presentation, as well as in the integration across the four rotations.

In addition to the research rotation presentation, students will present a **dissertation proposal seminar no later than the Spring semester of the third year**, and a dissertation defense seminar just prior to the final dissertation defense. Mentors are strongly encouraged to assist their students in preparing for these seminars well in advance of the seminar date. Preparation **must** include practice presentations and questions with ample time for re-formatting the slides and presentations prior to the final public presentation.

3. *Research In Progress (RIPs)*: Each month, the graduate students and postdocs hold a “Research In Progress” gathering wherein one or two students present their current research (~30 min per person). Pizza typically is served at these sessions and only graduate students and postdocs are present. The students organize the sessions, with the process being overseen by the graduate student representative(s) to the GTC. Presentations can be on completed work, but also can be given on difficulties encountered in the lab/with experiments or research plans being put together (e.g. during preparation of the dissertation proposal). Students should view these gatherings as opportunities to obtain feedback on their ideas / plans / research from their peers. It is important to note that students should NOT postpone giving a RIP because they have not yet obtained “data” to talk about. Thus, students are expected to present at least once each year in a RIP session, and to attend all other RIP sessions throughout the year in order to provide feedback to their peers and to gain insight into different research projects, experimental approaches, and analytical methods.

F. Journal Club

Departmental Journal Clubs meet regularly throughout the academic year, during which time graduate students, post-doctoral fellows, and faculty present a scientific publication of their choice and discuss with the group the results, strengths and weaknesses, and techniques used in the paper. Students are required to participate in a regular journal club of their choice, and will be graded on attendance (credit / no credit). The purpose of these journal clubs is to enable students to stay abreast of broad areas of research and to foster critical analysis of scientific work. There are two such journal clubs — toxicology and neuropharmacology — associated with the department at present. Note that the neuropharmacology journal clubs are held in smaller sections associated with specific laboratories; therefore, students interested in a neuropharmacology journal club should consult with their advisor. Students are expected to participate actively in the journal club every semester, including making presentations, even if they are not registered for Journal Club (PHTX 6710 or 6720). Students may participate in an alternative journal club on campus with permission of the GTC.

G. Teaching

Every student in the program must give **two, one-hour** lectures as a part of their graduate training. The first lecture is given in the **student's third year**, and the second lecture is given in the **fourth year** in pharmacology-related classes. The graduate student should choose a lecture topic from the previous course syllabus and then contact the faculty member who is usually responsible for the lecture to discuss the possibility of the student presenting it in his/her stead. After the lecture topic is chosen and affirmed by that faculty member, the student is to contact the coursemaster. The student will be helped by the faculty member who is otherwise responsible for that particular lecture and the coursemaster in organizing the lecture notes and lecture presentation and practicing the lecture presentation. The faculty member, coursemaster, and member of the Teaching Committee will also evaluate the presentation and review the evaluation with the student.

Mentors should encourage third- and fourth-year students in their laboratories to arrange for these lectures in a timely manner, but it is ultimately the responsibility of the student to arrange for these teaching experiences and the timely delivery of handouts.

H. Graduate School Curriculum Requirements

- *Program:* Candidates for the Ph.D. degree ordinarily must complete no fewer than three full years (six semesters) of approved graduate work (i.e., courses numbered 5000 and above) and a dissertation. More time may be required. In truly exceptional cases, a shorter period of time in graduate work may be approved by the dean of The Graduate School. If a supervisory committee finds a graduate student's preliminary work deficient, the student may be required to register for and complete supplementary courses that do not carry graduate credit. **Ph.D. candidates must file the Program of Study form with The Graduate Records Office. This form, which lists course work and research hours, is due one semester before graduation.** Courses taken through alternative delivery methods (e.g., via EDNET or the Internet) are approved on a programmatic basis through the Graduate Council.
- 2. *Registration:* The Ph.D. candidate (post qualifying exam) must register for a minimum of 14 credit hours of dissertation research (PHTX 7970, Dissertation Research Ph.D.) during his/her graduate tenure, and be **regularly enrolled at the University for three or more credit hours during the semester in which the final oral examination dissertation defense is taken.** Students must be continuously enrolled (excluding summer semester) until graduation.
- 3. *Residency:* At least one year (i.e., two consecutive semesters) of the doctoral program must be spent in full-time academic work at the University of Utah. Nine credit hours is considered a full load. Off-campus video conference courses may not be used to satisfy any part of this residence requirement.
- 4. *Language Requirement:* Although fluency in English is essential and all courses/activities are in English, the Department of Pharmacology and Toxicology does not have a formal language requirement. However, if you are an international student where English is not the primary language, to be a TA, you must be certified through the ITA program (<http://www.utah.edu/ita>).

IV. GRADUATE STUDENT OVERSIGHT

Graduate Training Committee

1. *Overview of GTC:* Up to three faculty members and one post-qualifying exam students currently form the Graduate Training Committee (GTC). The Chair of the department is an *ex-officio* member of the committee. The basic responsibility of the committee is to monitor the progress of students and to act as liaison between the students and the department. The committee meets once a month. The GTC is responsible for deciding the course requirements and administration/evaluation of the preliminary examinations, as well as evaluating the student research reports. It also makes recommendations at faculty meetings regarding the advancement of students to Ph.D. candidacy. Other responsibilities of the GTC include conducting semi-annual GTC student interviews and considering petitions and complaints of individual students. The student representative to the GTC also serves as the Department representative to the Student Advisory Committee of the College of Pharmacy to review faculty RPT files.

2. *Student Interviews* The GTC conducts meetings with students semi-annually (approximately December and June) on an individual basis to evaluate the progress of the student in the program. The GTC distributes an evaluation form to the students approximately two weeks prior to the meetings. Students are required to fill out their sections of the form and then submit the form to their rotation supervisors or mentors. The supervisor/mentor then completes that portion of the form providing an evaluation of the student's performance in both the lab and coursework. The student then meets with the advisor to discuss the content of the form/evaluation **before** the deadline for submission of the forms to the GTC. *It is the student's responsibility to make sure that the faculty member is given the form with sufficient time to complete it and meet with the student before the form is due to the GTC.* Once the advisor has reviewed his/her comments with the student, both the student and the advisor sign the form. The student then submits the form to the GTC by the due date. Individual Development Plans (IDPs) and an updated Curriculum Vitae will be required at the Dec. meeting annually to help ensure the student is on track for career goals. These evaluations are used by the GTC, the Chair, and the department to make recommendations regarding issues such as scholarships, advancement to *Candidacy*, or retention in the program. The role of the GTC is to assist the student, dissertation committee or faculty advisor in communicating the requirements and ensuring the student is on track to be promoted from the program. ***Unsatisfactory evaluations may be used as a basis for termination from the graduate program at any time (see Dismissal Policy for more details).***

V. QUALIFYING (PRELIMINARY) EXAMINATION

A. General Information

Qualifying Exams, also known as Preliminary Exams, are required of graduate students before official Advancement to Candidacy. The written and oral portion of the Preliminary Exam consists of preparation and oral defense of a research proposal, and is taken at the end of the student's second year, normally in June. The student advances to Ph.D. candidacy only after successful completion of both sections of the Qualifying Examination. This examination generally follows the second year and therefore, follows the Biological Chemistry Preliminary Exam at the end of the first year.

B. Qualifying Examination Committee Composition

The Qualifying Exam Committee consists of five faculty members. Under most circumstances, this committee will become the student's Dissertation Committee; therefore, the student should communicate with the GTC to obtain approval of the committee. Each student, with input from their Advisor, suggests to the GTC the names of at least five faculty members, a minimum of three faculty members are required to be from the Department of Pharmacology and Toxicology, to serve on his/her Qualifying (Preliminary) Exam Committee. The GTC must approve the composition of the committee prior to the initiation of the Qualifying Exam. The student's dissertation research advisor will be the Chair of the committee and is responsible for supervising the oral section of the exam and recording the questions asked and the answers given. If the advisor is not a Pharmacology and Toxicology faculty member, a co-advisor from the Department of Pharmacology and Toxicology will also be identified. The co-advisor from our Department will be the thesis advisor of record with the Graduate School.

C. The Exam

Each second-year student submits their thesis research-proposal abstract to the Chair of the GTC by April 30th. The topic should be the student's intended dissertation topic. Students often expand on the project that they worked on during their second-year while in the laboratory of mutual choice by the student and advisor. The abstract, to be written in a manner analogous to the Specific Aims page of a grant, is to state concisely the significant background for the proposed project, the hypothesis to be tested, the specific aims, the methods to be used, and the potential significance of the findings. This abstract should be approximately one page, single-spaced. The abstract should be detailed enough to enable the Qualifying Exam committee to determine what techniques will be used to address the problem.

The Qualifying Exam Committee then meets with the student within the next month (**no later than the last week of May**). While the Chair of the Qualifying Exam Committee will work with the student to schedule this meeting, it will be the ultimate responsibility of the student to schedule the meeting.

At that meeting with the Qualifying Exam Committee, the student will present (in Powerpoint format or as a chalk-talk) their thesis proposal. If the Qualifying Exam Committee deems it necessary, an additional meeting can be scheduled, to occur no later than the end of May, at which time the student can be given more feedback about the proposal.

After the meeting(s) between the Qualifying Exam Committee and the student, the student then prepares the written research proposal. The proposal *must* follow the NIH NRSA application format / instructions for the research plan. In addition, all questions about the use of vertebrate animals and/or human subjects must be addressed in the proposal, as per the instructions for the NIH NRSA. The purpose of this exercise is to evaluate each student's ability to identify and approach a research problem and to write a grant proposal. The students' ability to defend their research approach is also assessed. The completed proposal is submitted to the committee late May or early June. The oral defense of the proposal (oral exam) is then held approximately two weeks later.

Summary of Oral and Written Qualifying Examination Process

- Student submits their thesis research proposal abstracts/specific aims pages and names of the putative Qualifying Exam Committee to the Chair of GTC by 5:00 PM of April 30th.
- The student is responsible for coordinating and scheduling the Qualifying Exam meeting at which the student will present their proposal. This meeting is to take place no later than the last week of May.
- The student presents (Powerpoint or chalk-talk) the proposal topic/abstract to the Qualifying Exam Committee. The presentation should be ~ 15 min long and include a review of the relevant background leading to the hypothesis, the hypothesis, the aims to test the hypothesis, and the methods to be used. A statement of the significance of the work also should be included.
- If needed, the committee can schedule another meeting with the student at which time further feedback on the proposal could be given. Such a meeting must occur before the end of May. If revisions are required, the Examination Committee will reconvene before July.
- The student writes the full, NRSA-format research proposal (1 specific aims page + 6 pages for the background and research strategy). The proposal will be submitted to the Committee two

weeks before the defense. The defense should take place within six weeks of the presentation of the specific aims. The proposal should be an NRSA-format research proposal (*i.e.* ~7 pages single-spaced with a Specific Aims section, Background and Significance Section, Preliminary Data Section (if any), and a Research Design section). It is imperative that this proposal be distributed in a timely manner to the committee so that members of the committee have time to study and consider the proposal/research design so that they can provide meaningful feedback to the student.

- The presentation of the final proposal should be ~45 min in length and then followed by the examination of the student by the Committee members. This presentation should serve as the basis for the presentation to the entire Department in the subsequent Fall semester if the student is promoted to candidacy.
- *Oral Exam:* The Chair of the Qualifying Examination Committee will provide a brief introduction to the rules of conduct in the presence of the student. The Chair will be the timekeeper and is entitled to terminate questioning at the specified limits. The Chair will keep a record of the questions asked and the relative strengths and weaknesses of the responses given. The Chair should refrain from addressing questions directed at the student from other committee members.
- The chair should ask the student to provide a very brief educational background to the committee. The student will then provide a brief description of his/her research project proposal. Each examiner will then be given up to 15-min of uninterrupted time for examination on research proposal-related topics. Following all individual 15-min segments, each member of the committee will be allowed an additional five minutes during which to ask any additional questions.
- The faculty of Pharmacology and Toxicology votes on the advancement to candidacy; therefore, the student will then be excused and informed that they will not receive (nor should they solicit) any indication of performance until after the faculty meeting at which all candidates are considered.
- The committee will then discuss the student performance on the research proposal to determine, by vote, whether the performance on both the oral and written portion of the Qualifying Exam was satisfactory or unsatisfactory. The Chair will keep a record of the discussion. The committee will vote on a recommendation for pass, conditional pass, or fail. A simple majority vote is required to pass the student. If a conditional pass is voted, the committee will define possible courses of remedial action to be presented to the entire faculty for consideration and approval. A broad, clearly unsatisfactory performance (“fail”) will require a re-write of the proposal and/or a re-take of the oral and/or written portion of the Qualifying Examination.

D. Advancement to Candidacy Pharm/Tox Dept. Faculty Meeting

The Chair of each student’s committee will summarize the student’s academic file including coursework taken, grades received, research rotation evaluations, seminar evaluations, publications, fellowships received, and other relevant factors. The Chair of the Qualifying Exam Committee will provide the faculty with a brief verbal synopsis of the student’s performance on the written portion of the Qualifying Exam, as well as on the research proposal and oral examination, together with the final recommendation of the Qualifying Exam Committee. Faculty may then ask questions of the committee Chair to which s/he will respond or allow other members of the committee to respond. The floor will then be available for

free comment and discussion. The recommendation of the Qualifying Exam Committee concerning advancement to candidacy will be voted upon by a quorum of the faculty after considering the student's performance on the Qualifying Examination, academic achievement, and research achievements. If negative, the faculty will discuss and vote on any remedial action suggested by the Qualifying Examination Committee. **The decision to advance the student to candidacy, to require remedial work or re-take of any or all of the Qualifying exam, or to terminate the student from the Graduate Program will be made by simple majority vote of the faculty quorum in attendance at the meeting or voting by proxy.** With the committee and faculty approval, a copy of the proposal should be submitted to the GTC.

E. Advancement to Candidacy

After successful completion of the preliminary examinations and forwarding to candidacy has been approved, the "Report of the Qualifying Examination for the PhD Degree and Recommendation for Admission to Candidacy" form is filled out by the student with help from the staff in the departmental office and placed in the student's folder in the departmental office. Original forms are located in the department office or can be obtained from the Graduate School website. The form states that signatures of the Qualifying Examination Committee are required, but in the Pharmacology & Toxicology Department students have the members of the Dissertation Supervisory Committee sign this form. The University anticipates that the Qualifying Examination Committee and the Dissertation Supervisory Committee will be composed of the same individuals, but this is not the case in this Department. Thus, students do not have this form signed until they meet with their Dissertation Supervisory Committee for the first time. Proceedings may be delayed if the signatures on the "Report of the Qualifying Examination for the PhD Degree and Recommendation for Admission to Candidacy" form do not match the Dissertation Supervisory Committee member signatures on the dissertation.

Once the faculty votes to recommend a student for candidacy, that student is then eligible to register for dissertation work towards completion of the Ph.D. degree (PHTX 7970; Thesis Research: Ph.D.).

F. Remedial Action

In the instance where a student is perceived by the faculty to have performed poorly on the written and/or oral portion of the Qualifying Exam and a conditional pass is recommended, or if the student has not met other research or academic standards of the program, a number of different actions may be taken. The student may be asked to complete some remedial coursework with guidance from a faculty member, or the student may be required to take further tests, oral or written. The decision is up to the faculty as a whole and is based upon the extent of shortcomings the faculty perceives the student has demonstrated in either academic or research areas. If a re-take of the oral and/or written portion of the Qualifying exam is necessary, only one re-take is allowed, as per the policy of the Graduate School at the University of Utah.

Students who have not shown the ability or motivation that is expected of a Ph.D. candidate may be allowed to pursue only a Master's Degree if sufficient research has been completed or may simply be terminated from the program, if there is not sufficient research completed for a Master's Thesis. The faculty of the Pharmacology and Toxicology Department make every effort to encourage a student to succeed and become a scientist of high caliber, but feel that such steps may be necessary to keep the standards of the program high. It is the responsibility of the GTC and **each student's mentor** to make the student aware of the quality of his/her performance throughout his/her tenure in this program.

VI. DISSERTATION

A. Choice of Dissertation Advisor

Toward the end of the student's first year, the student must choose the mentor and laboratory with which to conduct the dissertation research. The student should discuss with the prospective mentor whether there is funding and space available for the student to conduct his/her dissertation research in the laboratory. Once the faculty member and student agree to pursue the dissertation together, he/she can begin the dissertation research (Note that before passing the qualifying exam the student research is PHTX 7920 following the qualifying exam is PHTX 7970).

Students normally conduct dissertation research in one of the laboratories in which they did their rotations. However, it is acceptable for a student to conduct dissertation research in a laboratory that is different from any of the laboratories in which s/he has previously worked.

B. Dissertation Project

Once the student has decided on a laboratory in which to do the dissertation research, the student, in consultation with the dissertation advisor, should choose a research project for the dissertation. The student is to design and conduct experiments to address a novel research question and interpret results of the experiments in light of that question. While it is understood that the student's dissertation project will be related to the research ongoing in the mentor's laboratory, it is expected that the actual hypothesis to be tested and experimental design will originate with the student, be original, and show creativity on the part of the student.

Thus, the dissertation project should represent a high degree of original and independent work by the student. The dissertation presents proof that the student is ready to be independent; *i.e.*, that the student has the ability to ask questions relevant to some field of inquiry, that the student has developed an appropriate, detailed approach to addressing these questions, and that the student can gather data and interpret them in relation to the current status of the field. Where components of the research project are performed by someone other than the student (*e.g.*, by core facilities, by technical support personnel, by collaborators, or by fellow laboratory members), it is the expectation that the student will have complete familiarity with the experimental details, the underlying basis of any tests or assays, the interpretation of the data, and the validity of any conclusions. It will be the responsibility of the Dissertation Committee members to assure the student's adequate command of this information before signing the Report of the Final Oral Examination. If such components completed by others are to be incorporated into the dissertation document, that information and data generated by others should be clearly identified and labeled as work by others.

C. Dissertation Supervisory Committee

The student formally forms the Dissertation Supervisory Committee shortly after passing the preliminary examinations (*i.e.* in the summer of the second year). The purpose of the committee is to aid the student in successful completion of the dissertation project. The committee must have an odd number of members, with the minimum being five. One member must hold a primary academic appointment **outside** the Department of Pharmacology and Toxicology. The students generally have five committee members with the **dissertation advisor as the chairperson of the committee**. In the case where the student's mentor has a primary appointment in a department outside of the Department of Pharmacology and Toxicology, the committee must contain a chairperson whose primary appointment is in the Department of

Pharmacology and Toxicology. The mentor then serves as co-chair of the committee. All University of Utah faculty members (including regular, research, clinical, emeritus, visiting and adjunct faculty) are eligible to serve as Committee members. Committee members must hold an academic or professional doctorate and/or have demonstrated competence to do research and scholarly work in the student's general field.

Dissertation committee formation is a joint effort by the student and the dissertation research advisor. Once the composition of the committee is agreed upon by both the student and advisor, a list of potential committee members' names is given to the GTC for examination. Students should not notify the individuals who will be asked to sit on the committee until the GTC has given approval. The GTC may have suggestions or perceive problems about the committee composition that should be addressed before anyone is asked to be a member. **The dissertation committee must also be approved by the Graduate School via completion of the "Request for Supervisory Committee" form (now electronic).** This form is filled out by the Departmental Office staff and **sent to the Graduate Records office for approval by the Dean of The Graduate School.** Email notifications will alert the committee members to approve on the electronic form. An actual paper form may be provided by the office staff to be filled out and kept on record with the student's file. At this same meeting, the student should also have the Supervisory Committee members sign the "Report of the Qualifying Examination for the PhD Degree and Recommendation for Admission to Candidacy" form. Both forms should be turned in immediately after the meeting to the Department office so that they can be submitted to the Graduate School. Again, many of the forms are being converted to an online format, assistance is available in the Department Office.

Note: If the student's mentor is a research-track faculty member, a letter from the Chair, as well as a letter from the mentor and a copy of the mentor's CV should be sent to the Dean of the Graduate School, along with the "Request for Supervisory Committee" form, asking permission for the research-track faculty member to serve as Chair of the Supervisory Committee.

The first dissertation committee meeting should be scheduled **early in the Fall semester of the third year before the Departmental Seminar.** There is a form available from the Department Office to track the progress of an candidate through their dissertation work that is required to be filled out at committee meetings.. At the meeting, the student presents a summary of the relevant background literature, preliminary data, the hypothesis to be tested, and the specific aims of the dissertation, as well as a description of the specific experiments to be conducted. **The student will present the public/departmental dissertation proposal seminar during a regularly scheduled Department seminar time in the Spring semester of the third year.** The Chair of the Seminar Committee, in consultation with the mentor and the student will schedule the date of that seminar.

The dissertation committee will aid the student in experimental design and data interpretation, but the student is expected to show notable independence and motivation in regards to his/her research. The student is required to meet with the dissertation committee **every six months** so that the committee can monitor research progress. More meetings may be scheduled if desired. At least **three members** of the committee must be present in person at each meeting. Departmental guidelines indicate that if a meeting has not been held within the sixth months prior to the GTC interviews, an incomplete grade will be given for the course "Research-Ph.D. (PHTX 7970) until the meeting is held.

D. Dissertation Document

Before a Ph.D. can be conferred, the student is required to prepare a formal written description of the work, present the work in a public seminar and successfully defend the work during a formal dissertation defense. As a partial fulfillment of the requirements for the degree of Doctor of Philosophy in Pharmacology, the written dissertation document must be signed by members of the student's dissertation committee.

The dissertation document must follow the established University of Utah format. "A Handbook for Theses and Dissertations", which gives the guidelines for the dissertation document, is available through the office of the Thesis and Dissertation Editor located in Room 208, Building 44. Document styles acceptable to the Pharmacology and Toxicology department are listed in that handbook. Doctoral candidates may submit one preliminary draft to the editor's office prior to the oral defense where a precursory check for style accuracy will be performed.

The public seminar and dissertation defense usually occur on the same day. The seminar/defense date is set by the student and dissertation committee members. **The student should submit the written dissertation to the Chair of the dissertation committee at least 3 weeks prior to the defense and to the other committee members at least 2 weeks before the oral defense.** Failure to meet these deadlines will result in rescheduling of the defense date by the Department Chair. In most cases, the student will submit numerous drafts to his/her mentor before the date is set and will have received significant input from the rest of the committee regarding the document contents. **The student and the Chair (mentor) share responsibility for deciding on the dissertation defense date.** The publishing of announcements of the defense is the responsibility of the student and should be distributed via the Department office at least one week prior to the defense date.

After the public seminar, the student defends the dissertation in front of committee members and any other interested parties. The defense is presided over by the Chair of the Dissertation Committee, and consists of:

- 1) A presentation by the student describing the main points of the dissertation (usually 5 min)
- 2) Fifteen (15) min of uninterrupted questioning by each committee member. However, members are allowed as much time as they feel is required.
- 3) Five (5) min of additional time for committee members to ask any follow-up questions.
- 4) Questions from other individuals attending the defense.
- 5) Deliberation by the committee after all individuals not on the committee have left the room. The committee will reach a majority decision (by vote) to pass or fail the student prior to signing any documents. If the student passes, the **"Report of the Final Oral Examination"** forms are signed immediately. If the student fails the defense, it will be rescheduled as determined by the Dissertation Supervisory Committee. If the student has failed because of the manner in which the dissertation is written, it will be rewritten to the committee's satisfaction. This may not require, at the discretion of the committee, a retake of the oral defense.

6) After the members vote, the student is brought back into the room and the outcome and any stipulations are discussed.

7) **Final reading of the document is the responsibility of the Chair of the Dissertation Committee.** After the all the corrections have been made satisfactorily, the Chair of the Dissertation Committee and the Chair of the Department sign the "**Final Reading Approval**" forms. These forms and instructions on how to prepare them are available in the Thesis Office.

When the "Supervisory Committee Approval" and the "Final Reading Approval" forms have been signed, the student should submit one copy of the manuscript to the thesis editor for "Format Approval". The Thesis Editor ascertains that the dissertation follows the correct style and has no grammatical errors, etc.-: "**Format Approval**" serves as clearance to duplicate the final copies.

For graduation in a particular semester, one copy of the defended, committee-approved manuscript must be submitted to the Thesis Office for "Format Approval" **four weeks prior to the last day of the semester.** For specific dates, consult *A Handbook for Theses and Dissertations*.

At least one week before the registrar's closing date for the semester, the student should submit three complete, duplicated copies of the thesis or dissertation to the thesis editor for "**Graduation Release**" (Dissertation Release).

Before the registrar's closing date for the semester, the "Graduation Release" and a copy of the "Supervisory Committee Approval" forms are filed in the Graduate Records Office by the thesis editor. The "Graduation Release" will be signed in that office if the student's file is complete.

- After the dissertation is accepted by the thesis editor, the student must submit it for publication. The University accepts three alternatives for complying with the publication requirements:
 1. The entire dissertation may be published and distributed by a publisher of the candidate's choice, exclusive of vanity publishing.
 2. The entire dissertation may consist of an article or articles accepted for publication in scholarly journals that have been approved by the dean of The Graduate School.
 3. The dissertation may be microfilmed by University Microfilms and copies may be made for public sale.

Regardless of the option used for meeting the publication requirement, an abstract of each dissertation is published in *University Microfilm's Dissertation Abstracts International*. Detailed policies and procedures concerning publication requirements, use of restricted data, and other matters pertaining to the preparation and acceptance of the dissertation are contained in *A Handbook for Theses and Dissertations*, published by The Graduate School and available in the Thesis Office, Room 208 Building 44.

VII. Dismissal Policy for Pharmacology & Toxicology

Student performance is evaluated biannually through student and faculty input to the Graduate Training Committee (GTC) interviews near the end of each semester. These are formal reviews of student progress in the program and, if there are any issues regarding continuation in the program, these issues will be discussed and documented during the student interview. However, the GTC or individual faculty, requesting through the GTC, may initiate dismissal processes of a student from the PHTX graduate program and the Graduate School for failure to meet the academic requirements of the program and for academic or professional misconduct. If concerns arise due to behavioral misconduct, these issues are adjudicated through the Dean of Student's Office. In any such event, the procedures outlined in the "Code of Student Rights and Responsibilities" shall be followed (<http://regulations.utah.edu/academics/6-400.php>).

Academic requirements:

PHTX students must remain in good academic standing with the graduate school (GPA \geq 3.0) or risk probation and/or dismissal. If the student is on probation from the Graduate School, one semester is allowed to increase the student's GPA before the termination of the Tuition Benefit Plan (TBP, <http://gradschool.utah.edu/tbp/tuition-benefit-program-guidelines/>) and dismissal from the program. In addition, students must pass each of the core PHTX courses with a B or better. If a student does not achieve a B or better in all PHTX core courses one additional opportunity is allowed for remediation prior to dismissal from the PHTX program. The student will be informed during GTC interviews that there is a deficiency as delineated in the Department Policies and Procedures and the Code of Student Rights and Responsibilities. If such a situation is discussed during the GTC interview, the student, thesis advisor, and Department Chair will be notified in writing. If the situation is not remedied, the GTC Chair will provide a letter of notification that the student has not remedied the deficiency resulting in his/her termination. Below is a list of common conditions which cause a student to be academically deficient within the Ph.D. program. If a student satisfies any of the conditions below, then the student is academically deficient unless there is a previous arrangement for deviation from the corresponding requirement.

- Failing a written qualifying exam on the same subject twice.
- Failure to have passed at least 2 written qualifying exams before their third year of study.
- Failure to have passed all written qualifying exams before January of the third year.
- Failure to have tentatively scheduled, by January in their third year, their oral qualifying exam. The exam does not have to be taken by this point, it should just be tentatively scheduled in GTC interview.
- Failure to have passed oral or written qualifying exams by the time specified in their most recent GTC interview.
- Failure to graduate by the date specified in their most recent letter of support.
- Failure to meet other individualized requirements specified in letters of support or other letters written by the Graduate Committee or Director of Graduate Studies.
- Failure to select an advisor by the end of their second year (the official policy is that students should have selected an advisor by the end of their first year).
- Failure to maintain a 3.0 grade point average (this is required by the Graduate School if the student wishes to continue to receive tuition benefit).

- Failure to conduct research at a level needed to complete a Ph.D. Also see the guidelines on the student/advisor relationship below.

Students who fall behind in any of these categories, or who fail to meet other requirements specified for their program, must promptly appeal to the Graduate Committee if they wish to continue in the program (these deficiencies may be pointed out to the student in the GTC interview or in most cases even earlier). Dismissal from the PHTX program shall result in termination of graduate student funding.

Departmental preliminary exam:

A student who fails the Pharmacology & Toxicology preliminary exam will be allowed one additional opportunity to achieve a passing assessment by the preliminary examination committee. If the student is academically in good standing but does not pass the preliminary exam a second time, s/he will be dismissed from the PhD Program but may petition the Graduate Training Committee to request a Master's degree, either 'Thesis' or 'Non-Thesis'. Funding for the completion of the Master's degree will be coordinated with the thesis advisor. A student will not be eligible to obtain a Master's degree unless they have satisfied all Department and Graduate School requirements for the degree, and the thesis mentor is in agreement that the degree should be granted. If this path is taken, a three-member supervisory committee must be formed. The role of the supervisory committee will be to examine the qualifications of the student and determine if a Master's degree should be awarded from the department based on the Thesis or their research contributions and course work.

Students wishing to leave the graduate program:

Students should contact the Executive Administrative Assistant and the chair of the Graduate Training Committee as early as possible if they are considering leaving the graduate program. The timing of a student's departure from the program impacts whether tuition must be reimbursed and eligibility for a degree. Reimbursement for tuition is delineated on the description of the Tuition Benefit Plan on the Graduate School website: **"IMPORTANT: Students adding and/or dropping courses after the semester's published add/drop deadlines are responsible for any and all charges incurred, including withdrawals. Tuition benefit will not pay for withdrawn credit hours, and if registration falls below nine credit hours at any time during the semester, a student becomes ineligible for TBP participation and will be billed the full tuition for that semester."**

Students will not earn and receive a Master's or PhD degree if the Graduate School and Department of Pharmacology and Toxicology requirements have not been met when they leave the graduate program. As such, students are advised to discuss degree requirements with the GTC by requesting a special interview before they consider leaving the graduate program. The student should recognize that they would be required to re-apply should they wish to continue in the program and work on another advanced degree.

Termination of student-faculty research relationship:

The following guidelines have been jointly approved by the Faculty and the Graduate Training Committee of the Department of Pharmacology and Toxicology for the rare occasions when it becomes necessary to terminate a graduate student-faculty advisor research relationship.

Either the graduate student or the faculty advisor may terminate a student/advisor research relationship because of dissatisfaction. It is important that both parties respect the needs of the other. The following guidelines are designed to help accomplish this.

If a faculty advisor is dissatisfied with the research effort of a student, the advisor should make every effort at an early stage of the dissatisfaction to communicate to the student the concerns s/he may have about the quality of research performance and document this communication. If the deficiencies persist, the faculty advisor should identify, in writing to the student, the unsatisfactory aspects of their research performance, and allow the student a reasonable time (at least 30 days from when a probationary letter is received by both the GTC Chair and student) to correct the deficiencies. A copy of this letter should be sent to the Chair of the GTC. If the deficiencies are corrected in the probationary period, the faculty advisor should notify the student in writing that s/he is no longer on probation (and a copy of the letter should be sent to the Chair of the GTC). In addition to the written letter, the thesis supervisory committee should be notified and a committee-wide assessment of the research project should be undertaken. If the thesis advisory committee determines that there is a lack of research progress, this should be identified in the progress reports provided to the GTC for discussion in interviews with the student as a noted deficiency that could lead to dismissal if it is not corrected before the next advisory committee meeting (note, advisory meetings are required at a minimum of 6 month intervals).

If the deficiencies persist at the end of the formal probationary period, it is the prerogative of the research advisor to terminate the student-advisor research relationship. The procedure should be:

- a. To notify the student (as well as the supervisory committee), in writing, giving reasons for the termination of the student-advisor relationship, indicating a formal termination date at least 15 days after the date of the letter. A copy of the letter should be sent to the chair of the Graduate Training Committee and Department Chair.
- b. If the student is being paid as a Research Assistant (R.A.), the student should be kept on the payroll for 15 days after the date of the notification letter to allow time to obtain a new research director, unless a new research director puts the student on a payroll before the end of the 15 days.
- c. In the unlikely situation that the student is being paid as a Teaching Assistant (T.A.), the department will continue the current T.A. support until the end of the termination semester, contingent, of course, on the T.A. duties being carried out conscientiously.

A student who wants to leave a research group should give the faculty advisor 30 days written notice outlining the reasons for leaving the group. During the 30 days, the experimental work should be brought to a point where it could be easily passed on to a new person. All notebooks and data should be returned to the research advisor before the student is put on another faculty member's payroll or within the 30-day notice period, whichever comes first. Students should be aware that it is impossible to make T.A. appointments in mid-semester and should plan accordingly.

When changing a thesis lab, the student must contact the Executive Administrative Assistant and the chair of the Graduate Training Committee as early as possible before they make arrangements to leave a thesis lab. This is to ensure the student understands the potential liabilities of the transition, including issues obtaining a degree, tuition support, stipends, health insurance and potentially visa status. Faculty must provide their student up to 4 weeks of financial support to facilitate their active search/transition to another lab. The faculty must submit to the Executive Administrative Assistant and the chair of the Graduate Training Committee an email detailing the length of support the parties have agreed upon.

However, as soon as the new lab/PI has agreed to take the student, the student and PI must contact the Department office, and financial responsibility for student support transfers to the new PI/advisor. The student is ultimately responsible for ensuring all Graduate School and departmental requirements are met and forms are submitted for the transition. As a matter of policy, the Department does not provide stipend support for students as they rotate to find a new thesis lab. Under rare circumstances, the Department may consider such support, but this must involve discussions in advance with the Department Chair.

It is the student's responsibility to identify a faculty advisor willing to advise and mentor the student during the pursuit of their PhD. If, after the termination of a student-faculty research relationship, the student is unable to identify a new faculty member willing to undertake this role, the student will be dismissed from the program. Upon dismissal, any remaining program funding to the student will cease.

Teaching Assistant Performance

Students holding Teaching Assistant positions are expected to perform competently and conscientiously in that role. TA's will receive periodic evaluations of their job performance, will be notified of any deficiencies, and will be monitored for improvement in job fulfillment. TA's who fail to meet their responsibilities after notice of deficiencies and an opportunity to improve may be terminated from their TA position. The Department of Pharmacology and Toxicology follows University of Utah policies delineated in University Policy 6-309 for the termination of an educational trainee position (<http://regulations.utah.edu/academics/6-309.php>).

VIII. TIME LIMIT FOR COMPLETION OF THE DOCTORATE

The time limit for completing the Ph.D. degree is determined by individual departments with the approval of the Graduate Council. Requests to exceed established time limits must be recommended by a candidate's Dissertation Committee and approved by the GTC and the Dean of The Graduate School. Students whose studies have been interrupted for long periods and who have been granted an extension to complete their degrees may be required to complete additional courses, pass examinations, or otherwise demonstrate that they are current in their field.

IX. UNIVERSITY AND DEPARTMENTAL POLICIES RELEVANT TO GRADUATE STUDENTS

A. Student Travel

Students should be encouraged to present data at national scientific meetings. If the travel is supported by the department or research advisor funds, students should be instructed to obtain and complete travel request forms from the department office at least one month in advance of the expected travel date. Reimbursement forms must be submitted to the office within ten days after completing the travel. Students should be reminded to save receipts for costs that are claimed to accurately claim reimbursement.

B. University Policy on Student Inventions

If a student invents a patentable item under the following conditions: while funded in whole or in part by an agency of the federal government; while using University facilities and/or equipment; while an

employee of the University; while participating in sponsored or organized research at the University; the student must assign rights to that invention to the University.

C. University of Utah Policy on Equal Opportunity

The University of Utah is committed to policies of equal opportunity, affirmative action and prohibits discrimination on the basis of race, color, national origin, religion, gender, sexual orientation, age or status as a Vietnam Veteran, disabled veteran or person with a disability. The University seeks to provide equal access to its programs, services and activities for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to the **Office of Equal Opportunity and Affirmative Action, 581-8365**. Further information also can be obtained through the Women's Resource Center 581-3030.

D. Hazard Communication and Other Laboratory Training

Upon arrival into a lab, it is the responsibility of the advisor to make the student aware of all hazards that are present. The student should be shown what to do in case of emergency, where spill containment equipment and fire extinguishers are located, etc. All labs must have available MSDS (Material Safety Data Sheets) for emergency information. In addition, it is the responsibility of the mentor to ensure that the student is trained in appropriate handling and use of animals, handling of human tissues, and handling of radioactive materials and that the student participates in the Occupational Health and Safety Program, as appropriate.

E. Program Policy on Health Insurance and Student Leave for Medical Reasons

Health Insurance and Family Leave. Graduate students have an option to get affordable health insurance coverage through the Graduate School as part of the Tuition Benefit Plan. Research Assistants and Teaching Assistants are generally eligible.

The Department of Pharmacology and Toxicology follows University of Utah Policy 5-200 (<http://regulations.utah.edu/human-resources/5-200.php>) for situations involving family or medical leave. In brief, your own serious condition or care-giving can take a period of up to 6 weeks paid family leave of absence and an additional 6 weeks of leave without pay, if you should choose. If parental leave is taken, it is expected that leave will normally be taken from the time that the new child arrives, and it should be completed within six months of the new child's arrival. The Department of Pharmacology and Toxicology offers financial support to TA's and RA's on family leave at their usual rate of compensation. Although we do not anticipate any conflict, this policy might be superseded by an external agency, such as University policy or by the requirements of a funding organization. Please talk with the Graduate Training Committee Chair if you wish to apply for family leave. **Students who experience a medical condition associated with their pregnancy and need accommodations recommended by their medical provider should contact the University's Title IX Coordinator, who will work with the student, cognizant faculty, and administration to determine what accommodations are reasonable and effective.**

F. Vacation

There is no formal policy regarding vacation time for graduate students. Students are expected to discuss the length and timing of any vacations with the dissertation or research rotation mentor prior to scheduling the vacation. Semester breaks are not considered "automatic" vacation time, as the University

and research laboratories are still open. Therefore, students should discuss vacations during semester breaks with the mentor before scheduling them as well.