This "Pharmacology and Toxicology Guide to Graduate Study" in the College of Pharmacy is intended to act as an informative supplement and is not intended to supersede University policy on graduate studies.
Certification page

Required by all Pharmacology and Toxicology students at the time of matriculation into the graduate program:

“I certify that I have read, understand, and agree to, the entire contents of this Graduate student handbook.”

Signature: __________________________________________________________

Date: ______________________________________________________________
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I. INTRODUCTION

Graduate education, research, and scholarly work leading to the Doctor of Philosophy degree in the College of Pharmacy (COP) of The University of Texas at Austin are designed to assist the student in attaining the highest level of professional and academic competence in the fields of Pharmacology and Toxicology.

The information and regulations described in this manual are meant to guide the graduate student in proceeding through the program of study. Advanced degrees in the College are awarded on the basis of successful completion of courses and examinations, together with the writing and defense of a dissertation. The student is also judged by the graduate faculty on his/her ability to design and carry through work of the student's own creation, on the qualities of industry and invention, and on the personal character and attitude expected of a person holding an advanced degree from The University of Texas. The graduate faculty of the College of Pharmacy and the Dean of Graduate Studies of The University of Texas determines the academic fitness of each graduate candidate.

Graduate study in the Division of Pharmacology and Toxicology is considered a full-time commitment on the part of the student. As such, students are expected to register for classes every semester, including summers.

The graduate program in Pharmacology and Toxicology aims to provide students with both breadth and depth in the disciplines, and to provide an experience in independent research. A student receiving an advanced degree from the College of Pharmacy will be prepared for a career in research and scholarly work in an academic institution, industry, or government.

A. ADVISING

The Graduate Advisor in the College of Pharmacy (Dr. Karen Rascati) has overall responsibility for graduate student recruitment and for the counseling and academic advising of graduate students in the pharmaceutical sciences. For the Division of Pharmacology & Toxicology, most of this is delegated to the Pharmacology & Toxicology Academic Advisor (Dr. Edward Mills). Dr. Mills also aids students with course selection and programmatic progress. The Graduate Coordinator is Ms. Char Burke who is the contact person for applications to graduate school in the COP. The Graduate Coordinator assists the faculty with all administrative duties associated with graduate programs in the College. She is an excellent resource for information about the protocols involved in obtaining the Ph.D. degree, in choosing courses, and for answering other programmatic questions. The Pharmacology & Toxicology Division Head (Dr. Karen Vasquez) is available to describe the program to prospective students as well as to handle grievances. After a student chooses a Supervising Professor, that professor, the student and the Academic Advisor work together in making course selections and ensuring timely progress through the graduate program. Formal paperwork must still go through the office of the Graduate Advisor.

The staff in the Office of the Dean of Graduate Studies (Main Building, Room 101) is also available to assist graduate students. The contact information for the faculty described above is provided here.

Graduate Advisor Dr. John Richburg PHR 4.220 (512) 471-5198 john.richburg@austin.utexas.edu
Graduate Coordinator Ms. Char Burke PHR 4.220A (512) 471-6590 char.burke@austin.utexas.edu
Pharm/Tox Div Head Dr. Karen Vasquez BME 3.510A (512) 471-4736 Karen.vasquez@austin.utexas.edu
Pharm/Tox Academic Advisor Dr. Edward Mills BME 3.510D (512) 471-6699 tedmills@austin.utexas.edu
III. ADMISSIONS, REGISTRATION, GENERAL REQUIREMENTS

A. ADMISSION

General Information:

- Questions about admissions requirements, registration, and general queries about the Ph.D. degree should be directed to Ms. Char Burke.

- Specific questions about the academic program, prerequisites, and the Pharmacology & Toxicology curriculum and progressions can be directed to the Academic Advisor, Dr. Edward Mills.

- There are no predetermined cut-offs for GRE scores or other admission criteria. However, most successful applicants have GRE scores of at least 160 (V) and at least 155 (Q). The Graduate School requires a GPA of 3.0 (out of a 4.0 scale). Background in biology, chemistry, biochemistry and/or physiology is expected.

Specific requirements for admission to the Pharmacology & Toxicology Ph.D. Program are:

1. Minimum of a four-year bachelor’s (baccalaureate), or master’s degree or equivalent.

2. A grade point average of at least 3.00 in upper-division work (junior and senior level) and in any graduate work already completed.

3. A satisfactory score on the Graduate Record Examinations General Test (GRE). GRE scores more than five years old will not be accepted. GRE information is available on campus from the Measurement and Evaluation Center, the Office of Graduate Studies, and the Graduate and International Admissions Center. International students must also submit scores on the Test of English as a Foreign Language (TOEFL). Although there are no official cut-offs for GRE scores, historically, the average GRE score total for the Pharmacology and Toxicology entering class has exceeded 1200 (verbal plus quantitative).

4. Previous academic training should include appropriate work in fields related to the health sciences. Applicants must have adequate subject preparation for the proposed graduate major, including general biology, general chemistry, biochemistry, and/or physiology. Any deficits may need to be remediated prior to or following admission at the request of the Division graduate faculty.

5. Submission of complete University and College of Pharmacy Application Forms.

6. Three letters of recommendation from individuals who are well acquainted with the applicants’ academic work and moral character.

7. A personal or telephone interview with the Pharmacology and Toxicology faculty, if requested.

8. A recommendation for admission by the Pharmacology and Toxicology faculty.

Applicants without the appropriate background may need to complete additional course work during their career within the College or as a condition for admission. Applicants who feel that their grade point averages or their scores are not valid indicators of ability should explain their concerns in a letter to the Academic Advisor.

Applicants are not guaranteed admission even if they meet these minimum requirements. The entire Pharmacology & Toxicology faculty reviews all completed applications. Students will be admitted
to the graduate program upon recommendation of the Pharmacy Graduate Studies Committee. The Vice President and Dean of Graduate Studies must approve all admissions.

**Admission with Conditions:** Almost all of the students who are admitted to the Graduate School have qualifications equal to or higher than the minimum standards outlined above. However, Pharmacology and Toxicology faculty may recommend, with the consent of the Graduate School, that a student who does not meet these minimum standards be admitted to the Graduate School with conditions. The Academic Advisor may require the student to maintain a certain grade point average or to take a certain number of semester hours of course work. A conditionally admitted student may also be required to remedy deficiencies in any academic preparation by taking undergraduate upper-division or graduate courses. The Academic Advisor notifies the student of these conditions at the time of his/her admission or if a deficiency is noted during the course of study. A student who does not fulfill the conditions within the specified time may be barred from subsequent registration in the Graduate School. Typically, such students enter under probationary status and are not eligible to receive financial support.

During the admission process, the Graduate School imposes conditions on applicants who are to be admitted with conditions if the College does not do so. Conditions are noted in the applicant's admission record until they are cleared. At the end of the semester for which conditions are imposed, the Graduate Advisor, together with the Graduate Coordinator, review the student’s file to see if conditions have been met. If all conditions have been satisfied, the Graduate Coordinator writes a letter to the Graduate School stating that the conditions have been met and requesting release from "probation." Standard conditions are: "must enroll in at least 9 hours of coursework, must earn a "B" or better in each course, grades of X (incomplete) or Q (dropped course) are not permitted, and continuance will be reviewed by the Chairman of the GSC or Graduate Advisor at the end of the semester." However, these conditions are at the discretion of, and may be modified by, the Graduate Advisor and the Pharmacology & Toxicology Academic Advisor.

**Readmission:** A former graduate student in good standing (with no outstanding fines or bars) is eligible to apply for additional graduate study. He or she must submit an Application for Readmission to the Graduate and International Admissions Center. The Pharmacology and Toxicology faculty and the Academic Advisor must approve readmission. A student who has been admitted to candidacy for the doctoral degree must register every fall, spring, and summer semesters as described in the section "Registration for Continuing Graduate Students."

**B. COURSE REGISTRATION FOR MATRICULATED STUDENTS**

The Graduate Coordinator, Char Burke, monitors the registration process. Questions about choices of specific courses should be directed to the Division Graduate Advisor, Dr. Mills. Students with a chosen Supervising Professor should confirm course choices with the advisor.

1. **Registration for New Graduate Students:** Applicants are notified by email of their admission or denial to the Pharmacology & Toxicology program. Admitted applicants should notify the Graduate Coordinator (Ms. Burke) as soon as possible, but no later than April 15 whether or not they plan to accept admission. The admitted applicant should work with Ms. Burke and the Academic Advisor (Dr. Mills). They should also read this handbook to learn the specific requirements of the program and when to register.

   University students register for each semester and summer session through the online registration system.

2. **Late Registration:** The period of late registration is given in the Course Schedule. During this period, a student may register with the consent of the college’s Graduate Advisor and a late fee is imposed. After this period, consent of the Graduate School is required.
3. Registration for Continuing Graduate Students: Registration in the Graduate School beyond the first semester depends on satisfactory progress in fulfilling any admission conditions that were imposed, meeting any requirements made in writing, and maintaining a grade point average of at least 3.00 for all upper-division and graduate courses. For further information about grade requirements, see the section "Grades". Make an appointment with a Division Academic Advisor before registering for courses in order to obtain approval and update your progression worksheet. The Academic Advisor must approve all electives in advance and sign an advising form which is turned into the Graduate Coordinator.

C. SAFETY, COMPLIANCE, IRB AND IACUC REQUIREMENTS

1. Safety: Students must complete and document all laboratory and university safety requirements in a timely manner. It is the student’s personal responsibility to complete all lab safety and training. In addition, the student is responsible for reporting any observed safety violations. Note, these websites are frequently updated.

Required Online Training for all Laboratory Employees
https://research.utexas.edu/ors/rdna-and-biosafety/ibc-training/

OH101, Hazard communication
OH201, Lab safety training
OH202, Hazardous Waste Management
** other biosafety training may be required

FF205, Fire Extinguisher Training:
http://www.utexas.edu/safety/fire/extinguishers/training.html

Potential Required Course (ask your supervisor if radioactivity is used in your lab)
OH301, Radiation Safety: http://www.utexas.edu/safety/ehs/train/courses.html

2. Compliance: Students must complete any and all compliance training (training, safety, ethics, etc) required by the university and the college. As part of this process, students are required to read this entire handbook and certify that they have read, and understand, all of the contents. Students must sign the certification on page ii of this handbook, and turn it into the Academic Advisor at the time of matriculation.

3. IRB and IACUC: If students are to work with humans or animals they must complete all appropriate training and be included on the proper protocols before they begin the project.

Animal Care & Animal Resource Center Orientation
https://research.utexas.edu/ors/animal-research/mandatory-training-for-working-with-animals/

You must complete the Orientation training module (3198). If relevant to your lab, you must complete species-specific training (e.g. rat, mouse, etc.).

Laboratory Animal and Biomedical Occupational Health Services Program (LABOHSP) - required for anyone working with animals or tissues.
http://www.utexas.edu/hr/current/services/ohp.html
Complete and print the questionnaire and deliver it as per online instructions.

Human protocols and IRB information (see also Appendix 5):
https://research.utexas.edu/ors/human-subjects/training/
IV. THE DOCTOR OF PHILOSOPHY DEGREE

A. OVERVIEW

Successful progression through the Pharmacology & Toxicology PhD program involves satisfactory completion of curricular requirements, oral and written communication requirements, laboratory work, first-year project, qualifying exam, a dissertation proposal and its defense, and the writing of a dissertation and its defense. These are each described in detail below, and in all cases, are dependent upon approval from the appropriate advisors. In brief:

a) Curricular requirements include satisfactory completion (minimum grade of B-) of Biomedical Pharmacology I & II, at least 3 additional didactic courses [5 total] (e.g., Fundamental Toxicology, Biochemical & Molecular Toxicology, Neuropharmacology), Responsible Conduct of Research, and Statistics. Students must participate in the Division seminar series every long semester, and in at least one journal club, all with approval from the Academic Advisor. An overall GPA of 3.00 must be maintained for progress to be considered satisfactory.

b) Oral and written communications requirements include satisfactory completion (minimum grade of B-) in the summer course, and presentation of the five types of seminars.

c) Laboratory work requirements include selection of a Supervising Professor, satisfactory progress in the lab at the discretion of the Supervising Professor, completion of a research proposal and its defense in the Qualifying Exam, entrance into candidacy, writing a dissertation proposal and defending it, and completion of the written dissertation and its oral defense.

B. STUDENT RESPONSIBILITY

The student is held responsible for knowing deadlines, degree requirements and enrolling for courses that fit into the degree program. The student is likewise held responsible for knowing the University regulations with regard to the standard of work required for continuance in the Graduate School. If the student needs additional information, the Student Office of the Graduate School or the Graduate Advisor should be consulted. All students are encouraged to check with the appropriate degree clerk in the Student Office of the Graduate School early in their graduate careers.

C. SATISFACTORY PROGRESSIONS

Prior to each semester (fall, spring, summer), students must have their course work approved by the appropriate advisor. Prior to choosing a Supervising Professor, the Division Advisor performs this function. When the Supervising Professor is chosen, he/she works with the student to choose the coursework, with final approval from the Division Advisor.

Registration and continuation in the Graduate School beyond the first semester is dependent on two main factors: 1) satisfactory progress in absolving any admission conditions that may have been imposed, 2) maintenance of a 3.00 grade point average for all upper-division and graduate courses taken in a given semester, 3) satisfactory completion of all other coursework (e.g., credit/no credit), and 4) satisfactory progress in research as documented above.

Should a graduate student make less than a 3.00 average in a given semester or Summer session, the student will be warned by the Graduate School that continuance as a graduate student is in jeopardy (warning status). During the next semester or summer session in which the student is registered, a 3.00 average must be maintained or the student will be subject to dismissal at the end of it. During this time of warning status, the Graduate School will not permit dropping or withdrawal from courses. If a student is in warning status, the Division must petition for him/her to
be continued in the Graduate School. During the next semester, the student must bring up the GPA to at least 3.00.

Any grades below B- even in non-mandatory courses may require remediation or subject the student to dismissal. This event, along with any unsatisfactory outcome of points 1 through 4 above, must be addressed prior to continuation in the next semester, through notification of the Supervising Professor, the Academic Advisor, and the Graduate Student Coordinator. Grades of D, F, incompletes and no credit may result in dismissal, academic probation, or other remediation. The Academic Advisor must be consulted in these instances.

The graduate student who has been dismissed may be readmitted for further graduate study only by petition by the Graduate Studies Committee of the College. The petition will be approved or disapproved by the Dean of Graduate Studies.

Satisfactory completion of coursework and other Division requirements is expected to occur prior to scheduling of the Qualifying Exam. At the discretion of the Supervising Professor together with the Academic Advisor, a student may take the Qualifying Exam prior to completion of one required course. However, this must be approved in advance.
D. CURRICULUM

1. **Sequence of Pharmacology and Toxicology Graduate Courses and Milestones:** This schedule is intended to help standardize the curriculum for all students entering the program, but individual schedules may be slightly altered due to various circumstances. Changes may be made as deemed necessary, with the approval of the student’s Supervising Professor and the Pharm/Tox Academic Advisor.

**FALL YEAR 1**

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<tr>
<th>Neuropharmacology Track</th>
<th>Toxicology Track</th>
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<tr>
<td>PGS 196S Division seminar</td>
<td>PGS 196S Division seminar</td>
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<tr>
<td>PGS 189Q Seminar in Alcohol</td>
<td>PGS 196T Toxicology Seminar</td>
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<tr>
<td>Basic Science Elective I</td>
<td>Basic Science Elective I or PGS 384K Fundamentals in Toxicology</td>
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<tr>
<td>PGS 196H Lab research or rotation</td>
<td>PGS 196H Lab research or rotation</td>
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[Basic Science Elective suggestions: MOL 395G Biochemistry, MOL 395J Molecular Biology, PGS 388K Molecular Mechanisms and Methods in Nutrition and Cancer, PGS 382T Basic Concepts in Tumor Biology], PGS 386C Cellular & Systems Physiology I

**SPRING YEAR 1**

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<th>Neuropharmacology Track</th>
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<tr>
<td>PGS 386D Cellular &amp; Systems Physiology II</td>
<td>PGS 386D Cellular &amp; Systems Physiology II</td>
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<tr>
<td>PGS 388K Basic Principles in Experimental Design &amp; Statistics</td>
<td>PHR 383Q Basic Principles in Experimental Design &amp; Statistics</td>
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<td>PHR 191Q Pharmacy and its Disciplines</td>
<td>PHR 191Q Pharmacy and its Disciplines</td>
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<td>PGS 196S Division seminar participation</td>
<td>PGS 196S Division seminar participation</td>
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<td>PGS 189Q Seminar in Alcohol</td>
<td>PGS 196T Toxicology Seminar</td>
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<tr>
<td>Basic Science Elective II</td>
<td>Basic Science Elective II or PGS 384L Biochemical and Molecular Tox</td>
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<td>PGS 196H Lab research or rotation</td>
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*Other milestones: Select supervising professor by end of spring semester*

**SUMMER YEAR 1**

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<th>Neuropharmacology Track</th>
<th>Toxicology Track</th>
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<td>PGS 487Q Communication Skills for Scientists</td>
<td>PGS 487Q Commun. Skills for Scientists</td>
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<td>PGS 196H Lab research</td>
<td>PGS 196H Lab research</td>
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<td>FAL YEAR 2</td>
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<td><strong>Neuropharmacology Track</strong></td>
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<td>PGS 380F Biomedical Pharmacology I</td>
<td>PGS 380F Biomedical Pharmacology I</td>
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<td>PGS 383D Neuropharmacology</td>
<td>PGS 384K Fundamental Toxicology or Elective I</td>
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<td>PGS 185D Responsible Conduct of Research</td>
<td>PGS 185D Responsible Conduct of Research</td>
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<td>PGS 185G Grant Writing for pharm/tox</td>
<td>PGS 185G Grant Writing for pharm/tox</td>
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<td>PGS 196S Division seminar</td>
<td>PGS 196S Division seminar</td>
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<td>PGS 189Q Seminar in Alcohol</td>
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<td>Lab research</td>
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<td><strong>Neuropharmacology Track</strong></td>
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<td>PGS 380G Biomedical Pharmacology II</td>
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<td>PGS 388K Pharmacol Mech Addiction</td>
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<td>PGS 196S Division seminar participation</td>
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<td>PGS 189Q Seminar in Alcohol</td>
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<td>PGS 196H Lab research</td>
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*Other milestones: Student works on draft of NIH-style proposal (NRSA) in preparation for qualifying examination*

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<td><strong>Neuropharmacology Track</strong></td>
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<td>PGS 196H Lab research</td>
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**Prepare and write Qualifying exam**

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<th>FALL YEAR 3 (and subsequent long semesters)</th>
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<tr>
<td><strong>Neuropharmacology Track</strong></td>
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<td>Qualifying Exam (first week of September)</td>
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<td>PGS 196S Division seminar</td>
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<td>PGS 189Q Seminar in Alcohol</td>
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<td>PGS 196H Lab research</td>
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<td>PGS 196H Lab research</td>
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</table>

**Basic Science Elective examples:**
- MOL 395G Biochemistry
- PGS 388K Molecular Mechanisms and Methods in Nutrition and Cancer
- PGS 382T Basic Concepts in Tumor Biology
- PGS 388L Fundamentals of Fluorescent Microscopy
2. **Division Seminar**: All students are required to present 4 seminars (type II through V) during the Division seminar series (196S). However, all students are required to attend every seminar whether they are presenting or are assigned as a discussant. In some semesters, the student may not have to sign up for the seminar course, and therefore will not receive credit for that semester, but attendance is still required. Over the course of the program it is expected that students will receive at least 4 credits for Division seminar.

3. **Journal Club**: All students are required to attend one journal club or seminar per long semester, usually the Toxicology seminar or the Alcohol Journal Club every semester. The choice of journal club should be decided between the student and his/her Supervising Professor. Depending upon course loads, students will not necessarily have to sign up for credit each semester, but they should sign up during those semesters in which they have adequate credits.

4. **Course Waivers**: Students who have been accepted into the Ph.D. program with previous graduate level course credit or relevant experience may have some of the required courses waived based upon agreement with the Supervising Professor and the Pharm/Tox Academic Advisor. Both must agree upon this waiver for it to be approved; the default is that the student must take the required course. When appropriate, a professor teaching a comparable course may be consulted for guidance or comparison of syllabus. Students must meet minimum requirements for the Program of Study mandated by the Graduate School.

5. **Grades**: Course credit is given per Graduate School guidelines. 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 3.00 at the end of the program of study. However, any grade below B- may result in probationary or disciplinary action at the discretion of college advisors. In addition, students in the Division of Pharmacology and Toxicology must receive a B- or better in every required course. At the course organizer’s discretion, a student may be allowed to repeat a core course on which he/she has received a grade of less than B-. However, this may happen only once in the student’s history in the program. 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 Dissertation courses (PGS 399 or 699), are counted in the average. Equivalent courses must be used to offset a ‘C’ (e.g. a didactic course for a didactic course, etc.). Grades of D, F, no credit or incomplete are discussed above.

The first dissertation (PGS x99) course earns a grade of CR/NCR. The dissertation (PGS x99) earn a grade of * until the final dissertation has been submitted to the Graduate School. The CR/NCR grades are not computed in the grade point average. No more than twenty percent of the credit hours submitted for any M.S. or Ph.D. degree may be taken on a Credit/No Credit basis.

6. **Course Load**: The maximum course load for a graduate student is fifteen semester hours (fall/spring) or twelve semester hours (summer). Registration in excess of these maxima must have
the recommendation of the Graduate Advisor and approval of the Graduate School, and will be permitted only under exceptional circumstances. The University and the Division currently recognize nine hours as a minimum full-time load during the long semester and three hours during the summer session and this is the standard course load for our program. 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.

7. Adding and Dropping Courses: Specific dates and information are available in the Graduate Coordinator’s Office. The UT catalog states: "With the required approvals, a graduate student may drop a course through the last class day of the semester or summer term; after the twelfth class day of the semester or the fourth class day of the summer term, the Graduate School's approval is also required. If the student drops the course by the twelfth class day of the semester or the fourth class day of the summer term, the course is deleted from the student's academic record and applicable fees are refunded.

If the student drops the course from the thirteenth through the twentieth class day of the long semester or from the fifth through the tenth class day of the summer term, the symbol Q appears on his or her academic record. No refund is given. After these dates, the course instructor assigns the symbol Q or a grade of F. If the student is registered on the credit/no credit basis, the symbol of NC is recorded.

Students with TA/GRA funding appointments must maintain full-time enrollment.

In general, the following policies apply in the UT Graduate School:

a) Whether a course is to be taken on the Credit/No Credit basis should be decided at the time of registration. Any request for changes after the 4th class day requires a special petition from the Graduate Advisor to the Graduate School.

b) Adds/Drops can be initiated in the Graduate Advisor's Office.

c) Dropping a graduate course beyond the standard date for undergraduates will only be approved for substantial, non-academic reasons. 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.

8. Transfer of Credit: Ordinarily, all work for the Ph.D. degree must be done at the University of Texas at Austin. Under rare circumstances, a maximum of six semester hours of graduate course work, in which the grade is 'A' or 'B', may be transferred from another institution, but only on the basis of petition by the College's Graduate Studies Committee and approval by the Graduate School. If transfer of credit is requested, an official transcript of these courses must accompany the petition to the Graduate School. In cases where such transfer is approved, the student must still meet the residence requirement of two full semesters or the equivalent. Rather than granting transfer of credit, more commonly, students may be waived from Division course requirements if prior graduate work at another institution is deemed appropriate (see above). This decision is reached by consultation with the Division Head, Supervising Professor, and Academic Advisor.

9. Documentation: A checklist of progressions in coursework, lab work, and other milestones must be updated when appropriate and provided to the Pharm/Tox Academic Advisor twice yearly; see Appendix 1.

E. RESEARCH AND PROGRESSIONS

1. Choosing a Supervising Professor: Incoming graduate students may enter directly into a specific laboratory, or may do rotations (arranged prior to admissions). Students must choose a Supervising Professor by the end of their second semester. Choosing a supervisor requires the consent of the faculty member involved.
In consultation with the Supervising Professor, Pharm/Tox Academic Advisors, and Division Head, students are permitted to change Supervising Professors during the course of their program, should this enhance their progress towards a degree. Thus, the initial choice, while important, may be changed at any time before the student enters candidacy. Changes after candidacy are possible, but are likely to substantially slow a student's progress towards a degree.

2. Progressions Committee: A three-person Progressions Committee meets annually (usually early in fall semester) with all graduate students not yet in candidacy. First year students meet as a group. Second year students (and beyond) meet individually in 15-minute meetings. After entering candidacy, the Dissertation Committees become responsible for the students’ progressions.

3. Documentation: All committee meetings are documented by the student evaluation form. The advisor and other committee members sign these at the time of the meeting. A copy of the form is submitted to the Graduate Coordinator and a copy is submitted to the Graduate Academic Advisor.

In addition, regular updates must be made to the progressions checklist in Appendix 1.

F. THE QUALIFYING (CANDIDACY) EXAMINATION AND COMMITTEE

1. Proposal Guidelines: The student is required to prepare a detailed NIH-style grant proposal on the topic of his/her research. The grant is typically formatted following NIH NRSA guidelines although some students format the proposal as an RO1 grant, as determined by the student's advisor. In either case, the grant must include the same general sections (specific aims, background and significance, research design and methods, bibliography). The cover page and an NIH-style biosketch are also required. Other NIH forms may be required at the discretion of the Supervising Professor. This proposal, when completed, is the written portion of the qualifying exam and it must be submitted to an examining committee no later than the end of the third year. The student will be required to orally defend his/her NIH proposal within one month of submitting it to the committee.

2. Procedure: At the beginning of the semester in which qualification examinations will be undertaken, the student should notify the Graduate Coordinator that candidacy is approaching. The written proposal must be submitted to the committee a minimum of two weeks prior to the scheduled exam. Otherwise the exam will be rescheduled.

3. Qualifying Exam Committee: An examining committee will be formed, consisting of the student’s Supervising Professor and at least three other faculty members, one of whom must be from outside the Division (selected by student in consultation with his/her advisor, the Pharm/Tox Advisor, and with approval of the Division Head). At least three members of the committee must be College of Pharmacy faculty and at least two members must be Pharm-Tox faculty. At the time of the committee formation, a memo must be submitted to the Pharm/Tox Advisor. The committee may include members of the student’s previous Supervisory Committee or may be reconstituted. The Supervising Professor serves as the committee chair.

4. Qualifying Exam Procedures: There are two parts to the exam and both must be completed in a single examination session. The first part of the exam is a one-hour general knowledge exam in basic pharmacology and toxicology. Each member of the committee spends 15 minutes questioning a student in this area. Topics of discussion include, but are not limited to, the content of Biomedical Pharmacology I and II, other required coursework (e.g., Neuropharmacology, Toxicology), and the content of required textbooks (e.g., Goodman and Gillman). It is the responsibility of the supervising professor to ensure that all members of the committee are informed of this examination procedure at least 2 weeks prior to the exam.

The second part of the exam is the proposal defense based on the submitted research grant. The examining committee will evaluate the proposal for creative thought, understanding of the chosen
scientific problem, clarity and organization of presentation, and thoroughness and accuracy of experimental design. The defense of the proposal begins with a prepared presentation of approximately 30 minutes, although this part of the examination generally lasts one to two hours due to questions and answers between the examining committee and the student.

The student needs to bring copies of the following document for completion after the exam:

5. Outcomes: A student may be allowed to repeat the proposal defense, the general knowledge section, or both, at the discretion of a majority of committee members. However, a student is only allowed one re-examination. The decision for transfer to a terminal master’s program may also be made at this time or at a subsequent meeting. If the qualifying examination is not passed, the examining committee may:
  1. Recommend that the student be terminated from the graduate program.
  2. Recommend that the student be allowed to retake either or both parts of the examination.
  3. Require that other action be taken (e.g., prior to retaking the examination, the student may be required to take further coursework for better preparation).

The two summative evaluation forms must be completed and submitted to the Dean of Graduate Studies and the Graduate Academic Advisor prior to entrance to candidacy.

6. Entrance to candidacy, documentation, and notification: After the qualification examination, the student should consult with the Graduate Coordinator to discuss the process for applying to candidacy (online).

   The satisfactory completion of these requirements, along with a B- or better in all required didactic courses and an overall GPA of 3.00, will allow the student to apply to enter Ph.D. candidacy. A student may progress to candidacy with one outstanding course only with advance approval of the Academic Advisor. The Graduate School, following application to the Administrative Subcommittee of the Graduate Studies Committee, formally approves candidacy. Additionally, an update to the checklist in Appendix 1 must be made at the time of entrance to candidacy.

7. Dissertation Supervisory Committee: The application for candidacy includes specification of the members of the Dissertation Supervisory Committee. The student consults with the Supervising Professor and the Academic Advisor concerning the composition of this committee. The committee ordinarily consists of four members (minimum) drawn chiefly from the candidate's major area, and chaired by the student’s Supervising Professor. At least one member of the committee must be from outside the Pharmaceutical Sciences Graduate Studies Committee (GSC). The committee requires three faculty members from the Pharmaceutical Sciences GSC, although all do not need to be from the Division of Pharmacology & Toxicology.

   Based upon the Graduate Advisor's nomination, the Graduate School appoints the committee, which then serves to guide the student in the pursuit of the research problem and in the writing of the dissertation itself. While there is every expectation that the original NIH proposal evaluated in the qualifying exam will serve as the blueprint for the student's dissertation research, it is recognized that new findings may require substantial changes. These should be done in consultation with the student's Dissertation Supervisory Committee.

8. Dissertation Defense: Approximately thirty days before the Defense, the members of the dissertation supervisory committee are provided with copies of the dissertation. When, in the opinion of the committee, the student has completed the dissertation, the final oral examination is scheduled. This is accomplished by submitting the form Request for Final Oral Examination, which must be printed on pink paper, to the Graduate School a minimum of two weeks prior to the date of the examination. The form must be accompanied by one copy of each of the following, the
dissertation abstract, title page, and Committee Certification of Approved Version (unsigned) for a format check. The supervisory committee must approve the abstract before it is sent to the Office of Graduate Studies. The abstract will be published in Dissertation Abstracts, International. The committee's decision to examine a dissertation must be unanimous.

At the end of the exam, the student evaluation form must be completed and submitted to the Graduate Coordinator.

9. Timetable for Progression to Ph.D. candidacy and 99-hour rule: The guidelines stated above are intended to keep the students on track to receive their Ph.D. degree within five years after entering the program. The faculty understands that there may be delays for individual students at various steps along the progression to candidacy. However, all students are ultimately responsible for ensuring that they are making appropriate progress in their degree program. Students who have not successfully entered Ph.D. candidacy by the end of their 3rd year in graduate school may not be allowed to proceed into candidacy, but may be transferred to a terminal master’s degree program if that is deemed appropriate by the student’s academic advisors.

   No official time limit has been imposed on acquiring the doctoral degree; however, all completed course work that is included in a student's degree program at the time of admission into candidacy must have been taken within the previous six years (exclusive of a maximum of three years of military service). All doctoral work is subject to review by the Graduate Studies Committee of the College, if the student has not completed the degree within three years from the date of admission to candidacy. In addition, all work is subject to review by the Graduate School. Students should be aware that the Texas Legislature has required charging out-of-state tuition for all graduate students who have accumulated more than 99 hours of doctoral level credit. For more information on the official Graduate School policy on the 99 hour rule see the Office of Graduate Studies URL (http://www.utexas.edu/ogs/publications/index.html).

10. Graduate Forms and Instructions, Ph.D. Degree: Specific due dates, forms and guidelines are available on the OGS website (http://www.utexas.edu/ogs/). In general, it is required that the graduate student:

1. File the Degree Candidate Form in the Office of Graduate Studies by the required deadline. This must be done at the beginning of each semester the student anticipates possible graduation.

2. Submit the dissertation and dissertation abstract to the Supervising Professor at least sixty days before the final oral.

3. Submit Request for Final Oral Examination to the Graduate School after committee members have read and approved the dissertation. The request for the final oral should be made two weeks prior to the date of the exam. In addition, the student must submit ten copies of the approved dissertation abstract with the request for final oral. The abstract will be published in Dissertation Abstracts, International (it is hoped that this will be neither the student's first nor last publication). One copy of the Vita must accompany this material. See specific instructions on the OGS website. Be sure to reserve a room for your dissertation defense.

4. The following items are submitted to the Office of Graduate studies after the final oral.
   a. Uploaded dissertation
   b. Committee Certification of Approved Version (dissertation signature page)
   c. Copyright tutorial email confirmation
   d. Statement on Research with Human Participants form
   e. Statement of Research in Restricted Regions form
   f. Any requests to Delay Publication
5. The Report of Final Oral (gold sheet) must be signed by the Chairman of the Graduate Studies Committee, currently Dr. Karen Rascati, and is submitted to the Graduate School by the Graduate Coordinator.

11. Commencement Exercises and Diploma: The doctorate is awarded at the Commencement exercises following the successful completion (on time) 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.

G. ANNUAL STUDENT EVALUATIONS AND PROGRESS

Every graduate student is required to appear before the faculty each year to discuss his/her progress. Pre-candidacy students meet with the Progressions Committee. Post-candidacy students meet with the Dissertation Committee.

In addition, the Supervising Professor and the Academic Advisor will periodically review the student’s progress. When deemed necessary they may recommend additional course work, further examinations, termination of candidacy, or dismissal from the program. Recommendations are forwarded to the Graduate School.

Finally, students are expected to hold committee meetings with their Supervisory Committees at least once yearly. Such meetings should be documented in writing to the Academic Advisor and the Graduate School.

H. SEMINAR PRESENTATION REQUIREMENTS

1. Importance: Division seminars are designed to provide a chance for students to learn how to prepare and to present information orally on a chosen topic of pharmacology or toxicology. A secondary purpose is to disseminate pharmacological information on topics that may be peripheral to many students' research interests and to discuss such ideas and concepts in a scientific atmosphere.

Seminars provide an opportunity for faculty to assist students in his or her seminar style, for faculty to judge a student's ability to think on his/her own, and for students to gain speaking confidence in a friendly environment.

2. Requirements of PGS 196S: During each Fall and Spring semester, all students are required to attend the weekly division seminars (PGS 196S). However, for purposes of course credit, students are required to enroll only during those semesters in which the student will be giving a presentation. A summary of the specific requirements of this series is provided in Appendix 2.

3. Dissertation Seminar: This seminar will not count toward the minimum seminar requirement and will be 40-45 minutes in length. It will be presented immediately prior to the dissertation defense and will be open to the University community. It should adequately summarize the doctoral research work and could also be designed to serve as a job interview seminar. An abstract is not required for this seminar. However, it must be scheduled and announced at least two weeks in advance of the date.

VI. MASTER OF SCIENCE DEGREE

A. OVERVIEW AND PROCEDURE

The Division of Pharmacology and Toxicology does not admit students to a master’s degree-granting program. However, students in the Ph.D. program may be transferred to a terminal
master’s program under some circumstances, as described above. The requirements of the Graduate School must be met.

1. **Supervising Professor**: The program of each master's candidate will be developed under the guidance of a Supervising Professor and a Supervising Committee. The committee consists of 2-3 members or associates of the Graduate Faculty. One member shall be the Supervising Professor and one may be from a division outside Pharmacology and Toxicology or outside of the College of Pharmacy. One member must be a member of the Pharmacology and Toxicology Division. This committee is responsible for the quality, depth, and balance of the student's educational experience.

2. **Application for Candidacy**: The student in cooperation with the supervising professor and the Academic Advisor will choose the Supervising Committee. The proposed program of work and the Supervising Committee will be submitted to the Administrative Subcommittee for approval. The approved program of work and committee are sent to the Graduate Office on the form, "Application for Candidacy" in the semester of expected graduation.

The program of work needs to meet the Graduate School requirements. Those requirements include: at least 30 hours of course work including the six hours of thesis courses (PGS 398A and PGS 398B) and a six hour minor that consists of courses taken outside of the major department. Upper division undergraduate courses may be used for the minor but only with permission of the Graduate Student Advisor. A "B" average is required in both the major and minor.

3. **Research Proposal for Thesis Work**: The student, with the assistance of the supervising professor, may prepare and submit to the supervising committee for their comments and guidance, a Research Proposal for the Master's level research project. A non-thesis master's degree is not available in the College of Pharmacy.

4. **Seminar Requirements**: Students are expected to complete seminars through at least the Type III seminar (see Appendix 2). In some cases, students may give a Type IV seminar at the discretion of their Supervising Professor.

5. **Coursework Requirements**: These are identical to those in the Ph.D. program unless the Pharm-Tox Academic Advisor gives a waiver.

6. **Degree Candidate Application**: At the beginning of the semester of intended graduation and by the deadline established by the Graduate School, the candidate files an electronic Degree Candidate application to the Graduate School office.

7. **Thesis Preparation**: The thesis should be submitted to the supervising committee thirty days before the first day of the final examinations. The guidelines to be followed for thesis preparation are available from the Graduate School Office. The thesis must be submitted to the student’s committee at least two weeks prior to the examination. [http://www.utexas.edu/ogs/pdn/](http://www.utexas.edu/ogs/pdn/)

There are currently two acceptable formats for the master’s thesis: 1) An electronic version, in the form of a pdf file on a CD or 2) the traditionally bound version printed on 25% cotton bond paper. Either format requires an additional printed copy of the following pages to be submitted separately from the thesis: a title page; a signature page with original signatures from your supervising committee as listed on your Master's Graduation Application form; and an Abstract.

8. **Oral Examination, Master's Degree**: When the members of the student's supervising committee agree that the Master's thesis is satisfactory, the supervising professor will set a time and date for the M.S. oral examination. The examination committee consists of the members of the supervising committee. If the student does not pass the oral examination, a second opportunity will be given,
after an appropriate period, to allow for further preparation. If the student does not pass the examination after repeating it, the student will be dropped from the graduate program.

Upon successful completion of the examination, the supervising professor notifies the Graduate Advisor and the Dean of Graduate Studies that the student has satisfied departmental requirements for awarding the Master of Science degree. The Dean of the College of Pharmacy is also informed by the supervising professor of the satisfactory completion of all requirements by the candidate. The student will submit the Master's Data Sheet and two bound copies of the thesis to the graduate office.

9. Public Defense: Although not required, the Supervising Professor may require that the student give a public presentation of his/her master’s thesis work. If this route is chosen, this must be announced at least two weeks prior to the presentation.

10. Diploma: The Registrar mails the Master of Science diploma to the successful candidate three to six months after graduation.

VII. GENERAL INFORMATION:

A. ACCESS TO BUILDING AND LABORATORIES:

Upon arrival, the student will be issued an access card to the building and a key to the research laboratory when a supervising professor is chosen. If assisting in a course, the student may also receive a key to the teaching laboratory and preparations room. In order to decrease the chances of theft, doors should be closed and locked at all times other than when they are occupied.

When the buildings are closed you must have an access card in order to get into the buildings. After building hours you must enter and exit through the appropriate doors of the Old Pharmacy Building using your access card in the card reader on the exterior of the building to enter and the button on the interior of the building to exit. Under no circumstances (except fire or other emergency) are you to exit any other doors after hours. When you exit an improper door, the silent alarm is activated at the UT Police Department.

You should not let anyone into the building, 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 causes the alarm to activate and makes the building vulnerable to theft.

You must comply with these rules. The Pharmacy Dean feels that liberal access to the Pharmacy Buildings is a privilege, and if people cannot follow the guidelines for building security, they will have this privilege removed. Access cards will be confiscated.

B. LIBRARY

The student should adhere strictly to the library regulations on campus. Books and reference materials should be returned promptly by their due dates. Books and bound journals must not be used on a laboratory bench where they may become damaged by solvents. Materials must always be checked out before they are removed from the library.

Libraries of interest to the pharmacy graduate student are: Science, Chemistry, Engineering, Physics, Math, Geology, Law, Public Affairs, and the Perry-Castañeda Library (Main Library). Most items of interest are now available free of charge electronically.

C. OFFICE SUPPLIES

Office supplies are limited to use for Division or training-related activities only. Graduate students are expected to supply their own materials for production of their dissertation. Therefore,
copying of drafts of the dissertation is not allowed on Division copy machines. However, the student’s supervising professor may choose to help the student defray some of the costs of printing, copying, and binding of the dissertation.

D. RESEARCH LABORATORIES AND RELATED FACILITIES

The pharmacology & toxicology graduate student has access to the laboratory where the research work is to be done. With the approval of the supervising professor (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 to check with the faculty member in charge and read the instruction booklet before working with most instruments in the College. Check with your supervising professor in advance of using any apparatus, if at all in doubt.

Remember that being allowed to work in a lab other than your own is a special privilege that can be revoked if you leave the lab in disarray or damage the equipment.

E. SAFETY

Safety is of paramount concern in laboratories. The student should constantly guard against injuries from cuts, fires and explosions, and hazardous chemicals. Safety glasses should be worn as necessary in the laboratory. Smoking is not permitted in any University of Texas building. A sign should be posted when dangerous materials or explosive gases are being employed in a laboratory. Students should review the safety information available on the UT web site http://www.utexas.edu/safety/ehs/

All new students are required to attend several safety orientation courses which are offered by the UT Office of Environmental Health and Safety. These courses include the following (see pp. 4-5 for more details and links to the websites):

- 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

The Safety Officer of the College will routinely monitor your laboratory to assure that safety regulations are being met. Proper steps will be taken if safety is not maintained in any part of the pharmacy building.

Students working with radioactive materials should obtain a copy of the manual RADIATION from the University Safety Office and are required to attend a class offered by them to become familiar with the regulations regarding the use of radioactive materials 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.

Lights, water, steam and gas should be turned off when leaving the laboratory, unless special arrangements are made to have them remain on. Be particularly careful that water does not overflow and cause damage in the building.

Laboratory coats can be obtained through your supervising professor and should be worn. Closed shoes are recommended. The UT Safety office, who determines clothing as appropriate for laboratory work, does not approve sandals.
No University equipment (including computers) or materials should be taken from the building without permission of the supervising professor and the Dean's Office. All laboratories and offices should be closed and locked when personnel are not present.

F. PURCHASING

When materials required by a student for research are not available in the College, the student should fill out a purchase requisition and take it to the supervising professor for signature and further processing. The requisition form must include all information: account name and number to be used for the purchase, name of item, supplier and address, vendor identification number, catalog number, quantity and price, and person contacted at the vendor. The supervising professor should sign the form. In general, each laboratory has a set of purchasing procedures, which should be followed. Failure to follow prescribed procedures may delay the acquisition of research supplies.

G. PHOTOCOPYING

Photocopying on College machines is charged to the Pharmacology/Toxicology Division operating expenses. The graduate student may receive a copy card from the divisional coordinator to copy scientific literature at the Life Science or other campus libraries, although in some cases the student’s research supervisor will be required to provide the copy card. A graduate student's course notes and other personal material will not be copied on College machines, nor paid for on any university account. Downloading pdf files of scientific papers, and printing them in the Division is encouraged as opposed to using copy cards.

The duplicating machines, on the 5th floor of the Old PHR building or 3rd floor of BME 3.510, are available for use by all graduate students, postdoctoral students, and technicians during the day. If these machines are broken, you will need to wait or ask your Research Director for help in copying.

The duplicator inside the Division of Pharmacology and Toxicology office (BME 3.510) is only for the use of faculty and administrative staff.

H. USE OF TELEPHONES AND FAX MACHINES

Telephones and fax machines in the College of Pharmacy are for business purposes. The graduate student should not make or receive personal telephone calls, except on a very limited basis. No personal phone calls may be charged to the University phones. Long distance calls involving University business require an access code that can be obtained from your Research Director. This code is confidential and must not be given to others.

I. PREPARING REPORTS AND MANUSCRIPTS

The research proposal and progress reports for the graduate project should be prepared according to an outline of topics somewhat as follows:

- Research objective, aims, and purpose
- Background literature and previous work in the field
- Experimental procedure
- Proposed materials and equipment
- Results to be expected
- Bibliography

The thesis or dissertation should follow a similar outline:

- Aims and literature survey
- Experimental portion (equipment, materials & procedures)
- Results (data obtained)
- Discussion (analysis of results)
Format: A stylebook of the format required by the *Journal of Pharmacology and Experimental Therapeutics* may be used. Consult with the supervising professor for proper use of abbreviations, spellings, hyphens, decimal places, and statistical treatment of the data. In addition, useful monographs on scientific writing are available.

**J. 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 the copyright laws. Copyright laws also apply to computer software and students are expected to obtain legal copies of all software used in their work.

**K. GRAPHICAL METHODS AND DRAWING EQUIPMENT**

The student should become familiar with specific requirements made by the Graduate School, the editors of journals, and the supervising professor before preparation of graphs, tables, photographs, etc. A hastily or poorly drawn graph, although it may be supported by careful experimentation and valid data, will reflect poorly on the quality of work and on the author.

**L. THE RESEARCH NOTEBOOK**

The manner in which you keep records of research work in your notebook is of the greatest importance. Your research supervisor will provide specific instructions for each student in the lab. The following points are worth noting:

1. Use a notebook providing carbon-page duplicates, which may be removed and kept by you or the supervising professor in a safe place. This prevents loss from fire or other causes which could require that you re-do much of your work. When finally completed, the research notebook remains the property of the supervising professor. The student retains the tear out sheets. Alternately, the student may photocopy the notebook.

2. The notebook is for recording all data as it is collected. Do not use scraps of paper to record weights, spectrophotometer dial readings, etc. for later transfer to the notebook. Instead, enter all data directly into the notebook.

3. Computer printouts, hand-prepared graphs, photographs, and chromatograms must be pasted into the notebook at the appropriate point. Sometimes a more satisfactory practice is to keep a separate loose-leaf folder for large or bulky recordings such as computer results. The pertinent data from such sheets should be recorded in the notebook when received, and a reference made to the loose-leaf folder and page number where the original document is located.

4. The researcher must never rely on memory for data keeping. Data should be recorded in the notebook immediately when gathered. All information - dial settings, temperatures, formulas of reagents, company sources of equipment and supplies, and reference standard values must be recorded. All calculations should be shown clearly, so there would be no problem in repeating the operation at later time by another investigator. Scratch work
should be done in the notebook and then followed by the neater and more orderly steps of calculation.

5. Sketches for apparatus, ideas for new approaches, and references to pertinent literature should be included -- clearly marked as such -- in the notebook.

6. It is of great importance to include the reason for conducting each experiment and a discussion on the meaning of the results obtained. Any reasons for repeating the experiment or conducting a new or modified experiment would be included at this point.

7. It is better to be verbose than too brief in recording procedures, results and impressions in the notebook. If one notebook is filled, the recordings are continued in a second, third, etc. book, each properly identified: I, II, III, etc. with the title of the project and the experimenter's name.

8. At the beginning of each day, the experimenter dates the page. At the end of each day's recording, the experimenter should place the date and full signature at the bottom of the last written page. If significant results are being collected which could become the subject of a patent, or otherwise needed for legal proof at a later time, a second person close to the work should co-sign each page. No erasures should be made and no space left unused on a page if the document is liable to be needed in a courtroom at some later time.

9. All data belong to the supervising professor, not the student. This means that all original laboratory notebooks remain with the supervising professor after the student completes their program of study.

M. SUPERVISING PROFESSOR AND GRADUATE STUDENT

Early in the graduate career, the student will discuss program interests with members of the graduate faculty. Following the establishment of the supervisor-student relationship, the student and professor will meet to decide upon the student's didactic and research activities. The supervising professor will direct the student's work toward the advanced degree.

The supervising professor acts as the chair of a supervising committee to be chosen at the time of application for candidacy. The professor is chair of the preliminary examining committee and the dissertation committee, and will determine whether or not the student should bypass the M.S. degree and work directly toward the Ph.D. degree. The professor supervises the research work and writing of the thesis, dissertation or report, and assists the student to resolve difficulties as they arise. It is not the responsibility of the supervising professor to remind the student of deadlines specified by the Graduate School, or the need to maintain satisfactory grades in coursework, etc. In graduate school, it is expected that each student will develop self-responsibility, maturity of purpose, and an ability to design and plan work activities. Each graduate student exhibits a unique personality, and must be dealt with differently. The supervising professor, in most instances, will direct the beginning M.S. or Ph.D. student rather closely, then gradually pass on more responsibility as the student gains experience and knowledge. At the point of Ph.D. candidacy, the student should be making most of the decisions, writing clearly, planning and executing the work in a way that leads to results of the highest quality and integrity.

N. 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 the College of Pharmacy, together with the Dean of the College, will consider the matter. (Refer to the Graduate School Policy Manual for details of the procedure. The Handbook is available in the Graduate School Office and on the web: [http://www.utexas.edu/ogs/publications/index.html](http://www.utexas.edu/ogs/publications/index.html)).
O. FINANCIAL SUPPORT

The graduate student should check with the supervising professor or Graduate Advisor for availability of financial support during the tenure in the graduate program. Assistantships of all kinds are for services rendered, and are not to be construed exclusively as a subsidy for graduate education.

P. TEACHING ASSISTANTSHIPS (TA)

Teaching Assistantships may be provided as a form of support for students. The stipends for these various levels change from year to year. The usual expectation for a Teaching Assistant is to spend approximately 20 hours per week in the performance of duties. TAs are also expected to meet all requirements established by the Supervising Professor to ensure satisfactory progress toward the Ph.D. degree.

Q. RESEARCH ASSISTANTSHIPS (RA)

The Research Assistant receives a wage based on the specific grant or contract on which the student is supported, and the number of hours per week employed.

R. UNIVERSITY FELLOWSHIPS

These are awarded to first year and advanced graduate students on the basis of departmental nomination. Selections are made on the basis of merit, rather than need. Pharmacy graduate students have held one or two of these fellowships in a given year.

S. OUTSIDE FOUNDATIONS

Foundations, such as the American Foundation for Pharmaceutical Education, provide fellowship aid. The student should check with the Graduate Advisor or supervising professor for assistance in applying to an outside agency for support. Competition for these fellowships is keen and 3-4 students may hold them in a given year. Additional sources of aid can be found in directories located in the Main Building Library, Graduate Student Office, and the Hogg Foundation Library on campus. There are also numerous web sources of information students can consult.

T. OUTSIDE EMPLOYMENT

Outside employment is discouraged, as it tends to interfere with graduate education and the student's progress towards a degree. Outside employment includes any employment outside the university. It also includes any additional employment within the university that is not directly related to the student’s progress that was not preapproved by the Supervising Professor (an example is a student employed as a GRA who takes on additional work as a TA or grader). The Supervising Professor must approve outside employment in advance. If the student has not yet chosen a Supervising Professor, the Academic Advisor must approve it. If approval is not sought in advance, these supervisors may mandate its termination.

U. GRADUATE STUDENT ORGANIZATIONS

The Pharmacy Graduate Student Association (PGSA) represents all graduate students in the College of Pharmacy. The president of this organization serves as a liaison to the Dean of the College and assists in obtaining funding for students wishing to attend professional meetings to present papers or have job interviews. Also, the PGSA provides a means for selection of graduate student representatives for Graduate Council, Graduate Assembly, and the three sub-committees of the Graduate Studies Committee.
Appendix 1. Checklist for Progressions in the Graduate Program (update yearly)

Name: 

Today's date:

Date entered program (mo/yr):

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<thead>
<tr>
<th>Coursework</th>
<th>Course #</th>
<th>Course name</th>
<th>Semester</th>
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### Progressions

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### Seminars

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Appendix 2. Seminar Series

Students entering the program beginning Fall 2017 will present talks in the following format:
Type I - A 10-minute review of a manuscript written in the Communications Skills course. This seminar is given as part of the required Communications Skills course.

Type II - A 20-minute review of the literature in a discrete research area (not his/her own), including a philosophical treatment of topics of potential future research. Emphasis on this type of seminar will be on clarity of presentation, concise content, and quality of the ideas presented. This seminar is typically given in year 2 after taking the Communications course, but can be given earlier (e.g., if student arrives early and takes the Communication course in the summer prior to the Fall of their first year).

Type III – Two options are possible for the Type III seminar. The student can choose between a Responsible Conduct or a Research Talk:

Option I/Responsible Conduct of Research – A 10 to15 minute. case study presentation in the responsible conduct of research followed by the student presenter leading a 10 to15 minute discussion of the topic with the audience members. Topics can include, but are not limited to, case studies in data acquisition and management, mentor/trainee responsibilities, publication practices and authorship standards, conflicts of interest and commitment, and scientific misconduct. Presentations can come from published case studies, from contemporary cases described in the literature (e.g., journals such as Science and Nature often cover reports/evaluative reviews of scientific misconduct), or by creating your own case study from misconduct case summaries reported on the website of the Office of Research Integrity (http://ori.dhhs.gov/).

Option II/Research Talk- A 10 to 12 minute scientific presentation of the student’s research project, of such quality that it could be presented at a national or international meeting. Do not exceed the time limit of 10 to12-minutes.

Type III seminar should be given during years 2-3 in the program.

Type IV – A 25 to 30 minute scientific presentation of the student’s research project that could be presented as a meeting presentation or a “job talk”. Do not exceed the 30 minute time limit.

Typically, the Type IV presentation is given in years 3 or 4 of the program.

Type V - A 20 minute lay presentation of the student's general research area, in language suitable for the public. The student will be expected to emphasize the significance of the research and to limit the use of technical terms. It is appropriate for a student to omit discussion of her own specific research project, but rather, she should focus on the “big picture” of the field. The student could assume, for example, that the presentation will be shown on community television. Instead of an Abstract, the student will provide a 200 word description of the research in common language.

Optimally, the Type V presentation is given in years 4 or 5 of the program.
Students enrolled in the program prior to Fall 2011 will have the choice of presenting topics in formats indicated above, or in the following format:

Type I - A 10 minute review overview of a manuscript written in the Communications Skills course. This seminar is given as part of the required Communications Skills course, not as part of the Division Seminar.

Type II - A 20 minute review of the literature in a discrete research area (not his/her own), including a philosophical treatment of topics of potential future research. Emphasis on this type of seminar will be on clarity of presentation, concise content, and quality of the ideas presented.

Type III and Type IV - A 10-12 (Type III) or 25-30 (Type IV) minute scientific presentation of the student’s research project, of such quality that it could be presented at a national or international meeting. Do not exceed the time limits

Type V - A 20 minute lay presentation of the student's general research area, in language suitable for the public. The student will be expected to emphasize the significance of the research and to limit the use of technical terms. It is appropriate for a student to omit discussion of his/her own specific research project, but rather, he/she should focus on the “big picture” of the field. The student could assume, for example, that the presentation will be shown on community television. Instead of an Abstract, the student will provide a 200 word description of the research in common language.

General Guidelines: Students must attempt to improve with each seminar. New students will be trained in the required Communication Skills course to present their first seminar. New students should also watch experienced students and guest speakers and make decisions on how and how not to prepare and present seminars. After each seminar, the faculty will critique the speaker in order to facilitate improvement. Feedback may be oral or written according to the enclosed evaluation form. Students are required to keep copies of the written critiques. If the Division faculty deems a student’s effort inadequate, the student may be required to repeat a seminar in the subsequent semester before being allowed to proceed to the next type of seminar.

For seminar Types II-IV, an abstract, written in the style required for the Society of Toxicology or Society for Neuroscience, should be typed, single-spaced, and no longer than one page in length. It should include title, introductory sentence, a summary of important points to be made, a concluding sentence, and a complete bibliography (second page), written in the style of J. Pharmacol. Exp. Ther.

Scheduling of Seminar Presentations: Each semester, abstracts for all seminars (except Type I) will be due in the seminar director's office at a specified date. A reminder will be circulated approximately one month prior to this date.

Student Introducers and Discussants: In addition to presenting the required seminars and attending all seminars, students are expected to take part in the discussions following each presentation. To help with this process, each student will be randomly assigned as a discussant for seminars throughout the year. This schedule will be passed out along with the seminar schedule at the beginning of each semester. Please keep track of your assigned date for discussion. Students who are giving seminars will also be assigned as an introducer for one of the other speakers. The purpose of this is to give all students practice at this commonly overlooked aspect of public speaking.

Instructions for Preparing a Seminar Abstract
1. Follow the attached example, noting all details as indicated.

2. At the top should be given the Type of seminar (II, III or IV; abstracts are not required for Type I seminars), the length of the presentation, and whether the content will be "Literature Review" or "Research Data".

3. Be sure the abstract (including title) does not exceed 2000 characters (including spaces). This is a fairly standard length.

4. Note especially:
   a. Title in CAPITAL LETTERS: Use significant words descriptive of subject content.
   b. Author name underlined.
   c. Laboratory where research or literature search was done, city, state, and zip code.
   d. ...3-space indentation for first line.
   e. Entire abstract in one paragraph typed single-spaced.
   f. No margin at top of left side.
   g. Capitalize the first letter of trade names.

6. When using abbreviations, spell out in full the first mention, followed by the abbreviation in parentheses (see sample abstract). Do not abbreviate compounds in the title of the abstract.

7. On a separate page should be listed the bibliography you have used to prepare your seminar. References should be listed according to the format of J. Pharmacol. Exp. Ther: All authors, title, volume number, complete pagination, year (see a reprint or recent issue of the journal for exact details). For the convenience of the seminar audience, references should be in alphabetical order.

8. Other material can also be supplied if you wish: a longer description of the seminar content, tables, figures etc. These should begin on the page after the bibliography.

(Sample Abstract)

**Top 10 Feedback Comments During Faculty Critiques**

1. Know requirements for each talk topic (e.g., what is a lay presentation?)
2. Repeat questions from audience
3. Practice your talk in front of a “real” audience – not just yourself
4. Speak loudly, clearly, and use vocal variation
5. Have distinct opening and closing statements
6. Stick to time limits (e.g., Type II – 20 mins; Type III – 20-30 mins; Type IV – 10-12 mins; Type V – 20 mins)
7. Show energy and enthusiasm during your presentation
8. Proof-read abstract before submission, proofread slides before presentation
9. Make sure all material on slides is readable from a distance (e.g., Re-type or re-label if necessary)
10. Incorporate faculty comments and try to improve over previous talks
TEMPORARY INHIBITION OF PROTEIN SYNTHESIS INCREASES ARYL HYDROCARBON HYDROXYLASE ACTIVITY IN MAMMALIAN CELLS.
Harry V. Gelboin, Coll. of Pharmacy, Univ. of Texas, Austin, TX 78712

Aryl hydrocarbon (benzo(a)pyrene) hydroxylase (AHH), a microsomal mixed-function oxygenase, is inducible by benz (a)-anthracene in cells cloned from Burallo rat liver. In the absence of the polycyclic hydrocarbon inducer, inhibition of protein synthesis for 4 hrs. by cycloheximide (10 µg/ml) or puromycin (30 µg/ml) is followed by a 30-fold increase in AHH activity during the subsequent 4 hrs. This increase is a function of both the degree (35 - 97%) and the duration (0.5-4 hrs.) of inhibition of protein synthesis and is additive to the increase which follows exposure to benz(a)anthracene. The increase requires RNA synthesis during the period of inhibition of protein synthesis, but not subsequent to the removal of the block. The increase is prolonged by actinomycin D (1 µ/ml), when added after the release of the block of protein synthesis. Qualitatively similar results were observed in cell cultures of golden Syrian hamster embryos, DBA/2N mouse embryos, C57BL/6N mouse embryos, and the mouse cell line 3T3-4C2. The results suggest the presence of a labile protein(s), which reversibly represses AHH activity at a post-transcriptional level.
Seminar Evaluation Form

Name of Student ________________________________________________________________

Seminar Type ________________________________________________________________

Date _________________________________________________________________________

Evaluation Scale:   5 = Excellent, 4 = Very Good, 3 = Average, 2 = Below Average, 1 = Poor, NA = Not applicable

1. Opening Comments
   (What your seminar will cover, and putting it in context for the audience) _______

2. Quality of Abstract (Types II - V only) _______

3. Quality of visual aids _______

4. Quality of seminar content _______

5. Apparent knowledge of subject _______

6. Analysis of scientific data, if appropriate _______

7. Quality of speaking (grammar, pronunciation, etc.) _______

8. Originality of data (Type IV only) _______

9. Closing statement
   (Did you end your seminar smoothly and with originality?) _______

10. Response to questions from the audience _______

11. Overall clarity of presentation _______

12. Comparison to other students at the same level _______

Your strengths, this seminar:

Your weaknesses, this seminar:

Faculty Evaluator ________________________________  Letter grade _________
Guidelines for a Worthwhile Talk: The objective of the seminar speaker should not be to "get it over with"; rather, there should be an attempt to present some basic information in a chosen scientific area that will be worthwhile to most of the audience. This requires knowledge of the audience's background, skill in presentation, and ingenuity of thought.

Scientific speakers often seem to try to impress the audience with their skill in using the jargon or sophisticated language of their discipline. They often expect that it is the audience's responsibility to understand, to follow the intricate details, to fend off boredom, and to stay awake. Actually, it is the speaker's responsibility to keep it simple, intellectually fascinating, and exciting. A good rule of thumb is to aim at a diverse audience that generally has only slightly more knowledge of your area of pharmaceutical sciences research than the man on the street.

Scientific speaking should present precise and accurate thinking in the most intelligible form. To accomplish this, the speaker must observe several basic principles:

A. **Remember the listener.** This is the single most important principle. If the listener does not understand or is confused, the speaker must clarify the information.

B. **Know your material.** If you do not understand your material, the audience cannot possibly understand it. Regardless of how much you hope you will be successful, you will almost always be embarrassed when your ignorance is revealed.

C. **Be as organized as possible.** Clarity is a moral obligation. If the speaker presents the material in a disorganized fashion, everyone's time is wasted.

D. **Use suitable visual aids.** Find out how to make impressive slides or transparencies. Slides of tables or graphs from books, poor quality photography, or unreadable slides frustrate everyone. At the least, the visuals should be LARGE; at the most, they should be colorful and fun.

E. **Choose an interesting topic.** It is important to get an audience there in the first place. If you decide to talk about your own research, choose an attractive title such as "How Do Erythromycin Molecules Cross the Membrane?" Isn't this more enticing than "The Absorption Kinetics of Erythromycin in Solution"? Use your ingenuity!

F. **Use the rules of public speaking.** If you feel uncomfortable or unsure in front of an audience, practice your talk many times first. Brush up on general rules on how to get an audience "with you". Develop a "feel" for the audience. If the audience appears disinterested or someone dozes off, it's a good clue that you're wasting everyone's time.

G. **Keep your talk simple.** "DE-jargonize" your talk by using simple terms and defining all words that the audience may not be familiar with. No one is interested in how well you can impress him or her with big words.

H. **Be brief.** A speaker ought to be keelhauled for running overtime. It is a fact that the average adult can concentrate on even the most interesting speaker for only about 20 minutes. Keep your talk 30-40 minutes, as a general rule, and leave time for questions. Near the end of your talk, audience members will tend to be distracted very easily. ("When is this person going to finish?")

I. **Be enthusiastic!** The audience will usually be with you if you're confident and enthusiastic. Get them involved by asking frequent rhetorical questions for them to ponder. Make the information as personal as you can to them. ("Did you ever wonder whether Italian food would affect the absorption of erythromycin?" ) Use visual aids that are snappy, colorful, humorous, and unusual. Bring a prop or piece of equipment from the lab. Pound your fist on the table, mingle with the audience, and tell a clever joke. Show some individuality and FLAIR in your speaking!
Remember - will you be happy with giving "just another boring scientific talk"? NO!

**Appendix 3. Aims of graduate education in the College of Pharmacy**

A holder of an advanced degree from the College of Pharmacy, University of Texas at Austin should exhibit the following attributes:

1. Knowledge in considerable depth in one of the specialty areas of the pharmaceutical sciences.

2. Broad acquaintances with areas of pharmacy, basic science, and health fields related to this specialization.

3. Ability and industry to design, plan, and execute independent and original projects, carrying them through to their successful conclusion.

4. Facility and willingness to instruct others and to disseminate information to wider audiences in a clearly written or spoken manner.

5. A demonstrated sense of moral principles and character in relation to the chosen work. A commitment to honesty in research, publication, and dealings with others. A resolve not to compromise honesty, fairness or justice for self-interest, or urging of others in influential positions.

**Appendix 4. Statement on use and care of animals**

The Division of Pharmacology and Toxicology is dedicated to acquiring knowledge for the improvement of the health and safety of humans and other animals and the protection of their environment.

To fulfill this objective, the Division is committed to the design and conduct of the best possible scientific research. To ensure this commitment, the Division views as necessary the use of laboratory animals in research and testing except in those procedures where valid, scientific alternative techniques are available. The Division expects that each member shall observe the spirit as well as the letter of the laws, regulations, and ethical standards with regard to the welfare of humans and animals involved in any experimental procedures. The Division supports careful consideration of the number of animals used and encourages reduction where scientifically feasible. The Division strongly encourages and supports the development of valid, scientific alternatives to current animal research testing procedures.

To become familiar with the regulations and guidelines governing the use of animals in research you are encouraged to contact the Animal Resources Center at 471-7534 or their web page for a detailed outline of animal related research requirements.

Any student who fails to adhere to the University and NIH guidelines, regarding the handling, use and treatment of animals shall be subject to dismissal.
Appendix 5. Research Involving Human Subjects

The University adheres to the guidelines of the National Institutes of Health with regard to the involvement of human subjects in research. All faculty, staff, students, or employees who propose to engage in any research, demonstration, development, or other activity involving human subjects are bound by these regulations.

Doctoral proposals, as well as sponsored or unsponsored research, must first be submitted to the appropriate Departmental Review Committee and then (in most cases) be forwarded to the Committee on the Protection of Human Subjects Institutional Review Board (IRB) of the University.

Information about required procedures, agenda deadlines, and guidelines for preparing research proposals are available from the Office of Sponsored Projects, Main Building 303 (471-6424) or at their website. It is advisable to consult this office in the early stages of preparing a research proposal in order to facilitate the review process.

Appendix 6. Ethical Guidelines (courtesy of Dr. Karen Rascati)

The mission of the College of Pharmacy is to assure its students the opportunity to receive an unsurpassed education in the field of Pharmacy, including working with members of the Pharmacy faculty on their grant-funded or other research. While enrolled, students who are provided such opportunities are expected to use the knowledge and experience obtained from them in a manner that promotes, and is consistent with, the College's mission. Activities or outside employment that interferes with a student's ability to promote the College's mission should not be undertaken. If in doubt whether an activity or employment situation is in conflict with the College's mission, a student should consult with his or her advisor or the Dean's Office prior to undertaking the activity or employment.

SCHOLASTIC DISHONESTY AND UNIVERSITY DISCIPLINARY PROCEDURES

"Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair advantage to the student, or the attempt to commit such an act. Detailed definitions of these infractions may be found in The University’s General Information Catalog, Appendix C, Section 11-802. Detailed information also may be found under the Dean of Students on the Student Affairs web page at http://www.utexas.edu/student/. The following section is copied from this web page.

While the Student Judicial Services of the Office of the Dean of Students has the delegated responsibility for student discipline, when there is recommendation for suspension from the University or dismissal from the graduate student's academic program, Student Judicial Services will work with the Office of Graduate Studies in investigating and recommending resolution of the case.

Subchapter 11-800. Student Standards of Conduct

Sec. 11-801. Conduct Expected of Students
This subchapter describes offenses for which a disciplinary proceeding may be initiated, but the university expects from its students a higher standard of conduct than the minimum required to avoid discipline. The university expects all students to obey the law, to show respect for other members of the university community, to perform contractual obligations, to maintain absolute integrity and a high standard of individual honor in scholastic work, and to observe standards of conduct appropriate for a community of scholars.

Sec. 11-802. Scholastic Dishonesty

a. The dean or a faculty member may initiate disciplinary proceedings under section 11-300 against a student accused of scholastic dishonesty.

b. "Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act.

c. "Cheating" includes, but is not limited to
   1. copying from another student's test paper;
   2. taking, keeping, misplacing, or damaging the property of the university, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
   3. misrepresenting facts, including providing false grades or résumés, for the purpose of obtaining an academic or financial benefit for oneself or another individual or injuring another student academically or financially.

d. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.
e. "Falsifying academic records" includes, but is not limited to, altering or assisting in the altering of any official record of the university or the University of Texas System, the submission of false information or the omission of requested information that is required for or related to any academic record of the university or the University of Texas System. Academic records include, but are not limited to, applications for admission, the awarding of a degree, grade reports, test papers, registration materials, grade change forms, and reporting forms used by the Office of the Registrar. A former student who engages in such conduct is subject to a bar against readmission, revocation of a degree, and withdrawal of a diploma.

The Costs of Scholastic Dishonesty Can Be Severe

You may see or hear of others cheating. If so, don't assume that it is tolerated. Students can be suspended or expelled permanently from the University for scholastic dishonesty. A failing grade in the course is a common sanction. In addition, scholastic dishonesty leads to the creation of a disciplinary record, which may impact your future employment and educational opportunities. In short, it is simply not worth the risks.

Scholastic dishonesty also has consequences that extend beyond the individual. In the marketplace where graduates compete for jobs, the value of a University of Texas degree is largely related to the reputation of the University. Incidents of scholastic dishonesty reflect poorly on the institution's integrity and lessen the worth of the education attained by all University students.

Avoiding Scholastic Dishonesty: General Tips

Know what the instructor expects. Always seek clarification from the instructor; don't rely on fellow students for information regarding class policies. For example: To what extent is working together allowed, if at all? Know exactly where the line is and don't cross over it. What types of citations are expected on a paper?

Desperation clouds judgment and leads to poor decision making. Don't allow yourself to feel desperate in a course. Don't put off to the last minute completing a paper or project, or studying for an exam. What you may see as a "shortcut" could actually be scholastic dishonesty. Don't allow yourself to think the risks are worth it. That's gambling with your future! If you think you might need some help in a course, get tutoring early. Planning ahead will help you be more adequately prepared.

Unauthorized Collaboration

In the American educational system, the concept of original work is a fundamental tenet of scholarship. In recent years, more educators have also recognized the value of having students work on some assignments in groups. Students, however, may be engaging in scholastic dishonesty if they fail to distinguish between collaboration that is authorized for a particular assignment and collaboration that is done for the sake of expediency. Some students rationalize their involvement in unauthorized collaboration on the basis that it "helps them learn better" and is not cheating because they are contributing to the final product. Indeed, many educators believe that group assignments enhance some forms of learning. However, the purpose of a particular assignment and the acceptable method of completing it are to be determined by the instructor, not the student.

Unauthorized collaboration with another person on an assignment offered for academic credit is a common form of scholastic dishonesty. Such assignments may include, but are not limited to, lab reports, computer programming assignments, papers, homework, or tests (take-home or in-class). This violation also includes allowing another person to view your work drafted or completed
without the necessary authorization. Unauthorized collaboration can even occur within the context of group projects when the degree or type of collaboration exceeds the parameters of what has been expressly authorized.

Unless working together on an assignment has been specifically approved, it is not allowed. The extent of collaboration permitted may vary widely from one class to the next or even from one project to the next within the same class. Do not assume that working together is allowed. Always ask your instructor what his or her expectations are in this regard. While the course requirements in some classes at the University may consist primarily of group assignments, the norm in most classes is that each student is expected to do his or her own work individually. You should assume that you are to perform all assignments independently unless you have specific permission to work together on an assignment.

**Plagiarism**

Plagiarism is an extremely serious violation of academic integrity. *The Institutional Rules on Student Services and Activities* at The University of Texas at Austin defines plagiarism as follows: "Plagiarism' includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any other means another's work and the submission of it as one's own academic work offered for credit" (Section 11-802(d)). Plagiarism can occur in a myriad of forms and media. Although most commonly associated with writing, all types of scholarly work, including computer code, music, scientific data and analysis, and electronic publications can be plagiarized. The aim of this section is to help students and faculty deal with the complex and important issue of plagiarism on campus.

**What is Plagiarism?**

Nearly everyone understands that copying passages verbatim from another writer's work and representing them as one's own work constitutes plagiarism. Yet plagiarism involves much more. At The University of Texas at Austin, plagiarism is defined to include any use of another's work and submitting that work as one's own. This means not only copying passages of writing or direct quotations but also paraphrasing or using structure or ideas without citation. Learning how to paraphrase and when and how to cite can be difficult, yet it is an essential step in maintaining academic integrity.

**A Question of Intent?**

Plagiarism, strictly speaking, is not a question of intent. Any use of the content or style of another's intellectual product without proper attribution constitutes plagiarism. However, students plagiarize for a variety of reasons, and awareness of these reasons is essential for understanding the problem of plagiarism.

Some students choose to plagiarize. Whether claiming to be overworked, compensating for their own perceived academic or language deficiencies, or simply hoping to gain an academic advantage, those who choose to claim credit for another's work are guilty of plagiarism. Those who intentionally plagiarize "borrow" either from published sources, such as books, journal articles, or electronic information, or from unpublished sources, such as a friend's paper or a commercial writing service. Whatever the source, such conduct is a direct and serious violation of accepted standards of academic integrity.

Others, however, stumble into plagiarism. Negligent plagiarism can result from ineffective proofreading, sloppy note taking, or, most commonly, simple ignorance about the nature of plagiarism itself. Such inadvertent plagiarism, while not an excuse for what is still a serious breach of academic standards, is a more complex area of academic conduct than straightforward copying.
Addressing the issue of negligent plagiarism requires a careful examination of both the definition of plagiarism and the appropriate techniques for scholarly attribution.

**Paraphrasing**

Like a direct quotation, a paraphrase is the use of another's ideas to enhance one's own work. For this reason, a paraphrase, just like a quotation, must be cited. In a paraphrase, however, the author rewrites in his or her own words the ideas taken from the source. Therefore, a paraphrase is not set within quotation marks. So, while the ideas may be borrowed, the borrower's writing must be entirely original; merely changing a few words or rearranging words or sentences is not paraphrasing. Even if properly cited, a paraphrase that is too similar to the writing of the original is plagiarized.

Good writers often signal paraphrases through clauses such as "Werner Sollors, in *Beyond Ethnicity*, argues that..." Such constructions avoid excessive reliance on quotations, which can clog writing, and demonstrate that the writer has thoroughly digested the source author's argument. A full citation, of course, is still required. When done properly, a paraphrase is usually much more concise than the original and always has a different sentence structure and word choice. Yet no matter how different from the original, a paraphrase must always be cited, because its content is not original to the author of the paraphrase.

**Examples**

The following are examples, with explanations, of the wrong and right ways to paraphrase.

**The Wrong Way to Paraphrase #1**

**Original Passage:** "[J]ust before 1914 most religious leaders genuinely opposed war and few saw reasons to partake in a remote struggle in Europe. For decades a spirit of progressive optimism had moved many of the more powerful leaders, who saw no point in settling human differences with anything so destructive as war. Yet when it came, they closed ranks and generated an ideology to support it. The majority suspected innocents for presumed lack of patriotism and punished dissenters. For a brief moment they also found that the specter and cause of war united them as no spiritual impulse of their own ever could."


**Paraphrase:** Although initially skeptical, many religious leaders soon embraced America's involvement in the First World War, and even discovered that it (and the xenophobia surrounding it) bolstered their sense of solidarity more effectively than purely religious motivations had.

**Explanation:** This paraphrase, while an accurate summary of the above passage, is nevertheless plagiarized, because it contains no citation of the passage from which its main ideas are obviously derived.

**The Wrong Way to Paraphrase #2**
Original Passage: "To the young American architects who made the pilgrimage, the most dazzling figure of all was Walter Gropius, founder of the Bauhaus School. Gropius opened the Bauhaus in Weimar, the German capital, in 1919. It was more than a school; it was a commune, a spiritual movement, a radical approach to art in all its forms, a philosophical center comparable to the Garden of Epicurus."


Paraphrase: As Tom Wolfe notes, to young American architects who went to Germany, the most dazzling figure was Walter Gropius, founder of the Bauhaus School. Gropius opened the Bauhaus in the German capital of Weimar in 1919. It was, however, more than a school, it was a commune, a spiritual movement, a philosophical center like the Garden of Epicurus.


Explanation: While the author of this intended paraphrase mentions the source and gives a full citation in a footnote, this excerpt is nevertheless plagiarized, because it is in fact not a paraphrase at all but a nearly verbatim reproduction of the source. It is too similar to the original. Rather than concisely summarizing the ideas, it uses the phrasing and structure of the original.

The Right Way to Paraphrase

Original Passage: "The Republican Convention of 1860, which adopted planks calling for a tariff, internal improvements, a Pacific railroad and a homestead law, is sometimes seen as a symbol of Whig triumph within the party. A closer look, however, indicates that the Whig's triumph within the party was of a very tentative nature."


Paraphrase: Contrary to many historians, Eric Foner argues that the Republican platform of 1860 should not be understood as an indication of Whig dominance of the party. 1


Explanation: This paraphrase is properly cited and represents an accurate and concise summary of the source.

Note Taking and Proofreading
Good paraphrasing skills allow a writer to make use of source material in a fluid and honest way. However, proper note taking and careful proofreading, which come before and after the writing, can be just as important for producing high-quality and accurately attributed scholarship. When taking notes, do not copy directly from a source into your notes unless you intend to quote that source directly. Rather, read carefully, take time to think, and then write down, in your own words, the main ideas of what you have read. Of course, be sure to note the source for proper citation. These notes will then become the basis of your summary. Skipping the note taking step and paraphrasing directly from a source into a draft of your work not only limits your ability to think through the ideas for yourself but also increases the likelihood that you will commit negligent plagiarism. Use note taking as an opportunity to develop and organize your own ideas.

Proofreading, like note taking, is a vital step in the writing process, one that students too often skip. Proofreading offers the opportunity to check your work for errors of spelling and punctuation as well as overall fluidity of style and coherence of argument. It is also the time to verify all references and citations. Do not, however, wait until proofreading to include citations. Citations should be included in the first draft. It is simply too easy to omit a reference accidentally and then forget the source of a fact, quotation, or paraphrase.

Whose idea is it, anyway?

One of the most complicated aspects of source citation is learning how to distinguish "borrowed ideas," which must be cited, from "common knowledge," which does not need to be cited. A simple guideline is that well-known or easily accessible facts, such as the winner of the 1908 World Series, or commonplace observations, such as Einstein's prominence in modern physics, need not be cited. Unique ideas, controversial or especially important facts, and novel insights all must be cited (although other items may need to be cited which meet none of these criteria). This is a judgment that often depends on the writer and his or her academic community. What the audience of an academic journal considers common knowledge may not be seen the same way in a freshman composition course.

To be safe, be attentive to where you encountered a particular idea. Just as with paraphrasing, good note taking is invaluable for tracking the origin of ideas. And of course, the best advice remains: when in doubt, cite. Consult your instructor if you need help clarifying this issue.

Plagiarism and Collaboration

Plagiarism and unauthorized collaboration are very closely related areas of scholastic dishonesty. Although this document discusses unauthorized collaboration elsewhere, it is nevertheless valuable to examine in greater detail the relationship between unauthorized collaboration and plagiarism. In simplest terms, plagiarism and unauthorized collaboration both involve the same fundamental deception: the representation of another's work as one's own.

Because of this connection, group efforts that extend beyond the limits approved by the instructor often constitute plagiarism in addition to unauthorized collaboration. For example, an instructor may allow students to work together while researching, but require each student to write a separate report; if the students collaborate while writing the report, they are guilty of both unauthorized collaboration and plagiarism. In this example, each student submits a written work misrepresented as his or her own, which in fact he or she has borrowed from other, unattributed sources: the other students. Remember, plagiarism includes not just copying from a published source, but also submitting work obtained from any source as one's own. If you have any questions, ask your instructor for guidelines regarding collaboration.

Multiple Submissions
A second issue of academic integrity closely related to plagiarism is the submission by a student of the same paper for two courses, which some institutions label "self-plagiarism." The University of Texas at Austin classifies such conduct under the more general heading of scholastic dishonesty. Because of the unfair academic advantage gained from this conduct, students may not submit a paper or project that is substantially the same for two courses, unless expressly authorized to do so. When approved by the instructor, however, students may re-work or supplement previous work on a topic.

**Academic Integrity in the Information Age**

An issue of growing importance for student writing and research is the proliferation of electronic documents and information sources. CD-ROMs, on-line journals and encyclopedias, e-mail discussion lists, and Web sites of all sorts have opened a new world of information to researchers, as well as raised new concerns about academic integrity in the information age.

When using the new media as source information, you must take extra care to provide the proper citation. Furthermore, when taking notes on a computer from printed material, you must be especially mindful not to incorporate the writing of the source material into your notes, which you may then accidentally copy into your paper as an unattributed quotation or paraphrase.

Such simple mistakes result from the failure to observe basic writing procedures, especially proper note taking and proofreading. Good note taking skills are particularly important with electronic documents, because the ease of manipulating this information makes sloppiness and mistakes more likely and the adverse consequences potentially greater. "Cutting and pasting" is not an alternative to taking notes, because note taking is not just about transferring information but about arriving at and organizing original thoughts.

**How to Cite a Site: Attribution of Electronic Documents**

The most recent editions of a number of the most prominent style manuals, such as the *MLA Handbook for Writers of Research Papers* and Kate L. Turabian's *A Manual for Writers of Term Papers, Theses, and Dissertations*, include suggestions for citing electronic documents. Remember that these conventions are still in the process of being developed, so it is important to remain up-to-date and to check with your instructor about how to cite electronic information.

The following are the MLA suggested formats for citing some of the most frequently used electronic documents. These brief examples do not fully cover the topic, and are not intended to substitute for a reference manual. The University Writing Center (http://uwc.utexas.edu/) maintains on-line resources on citing electronic documents.

**Examples**

**CD-ROM:**


**Web Site:**

Many other electronic documents and citation formats exist. For more specific information, check with your instructor, a research manual, or the Undergraduate Writing Center.

**When in Doubt, Ask**

This publication has been produced to provide students with information that can be used to aid in avoiding plagiarism and maintaining standards of academic integrity. While designed to be comprehensive, this review has not addressed every aspect of this broad and complex topic. Members of the faculty should be a student's primary resource for explaining and clarifying issues of academic integrity.

**AUTHORSHIP**

Professor and peer collaboration on projects leads to questions about authorship of presentations and publications. Discuss and decide on authorship before writing an abstract or manuscript. Do not submit either an abstract or manuscript without the knowledge and approval of your co-authors. At his/her discretion, your major professor may require that you complete and submit a manuscript based on your thesis or dissertation before signing your graduation forms.