

Pharmacotherapy Guide to Graduate Study

**The University of Texas at Austin
(Revised November, 2009)**

This "Pharmacotherapy Guide to Graduate Study" of 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 Pharmacotherapy students at the time of matriculation into the graduate program:

“I certify that I have read, understand, and agree to, the entire contents of the Pharmacotherapy Guide to Graduate Study. ”

Signature: _____ **Date:** _____

I. INTRODUCTION

Graduate education, research, and scholarly work leading to the Master of Science and Doctor of Philosophy degrees in the College of Pharmacy (COP) at The University of Texas at Austin are designed to assist the student to attain the highest level of professional and academic competence in the area of Pharmacotherapy. The systematic investigation of bringing science to practice, as well as practice insights to scientific inquiry distinguish this program from 'traditional' pharmacy programs.

The objective of the graduate program in Pharmacotherapy is to prepare the student for the numerous opportunities in advanced practice and clinical sciences research positions related to pharmacy. The program is designed to meet the specific needs and objectives of the student in addition to providing a foundation of course work which is required of every graduate student seeking the degree. The program is designed to encourage the student to select an area of specialization within clinical pharmacy, thereby focusing their efforts to develop the expertise needed for advanced pharmacy practice and/or a career in clinical sciences research.

Information and regulations described in this manual are meant to guide the graduate student in proceeding through the program of study in Pharmacotherapy. Advanced degrees in the College are awarded based on completion of courses and examinations, jointly with the submission and defense of a thesis or dissertation. In addition, the student is also judged by the graduate faculty on the 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 estimation of the fitness of each graduate candidate rests upon the determination by the graduate faculty of the College of Pharmacy and the Dean of Graduate Studies of The University of Texas.

II. ORGANIZATION OF THE GRADUATE SCHOOL

When a graduate applicant is admitted to The University of Texas at Austin, the person becomes enrolled in the Graduate School of the University. The Graduate School is the largest department on campus. It is a body of professors and scholars of the graduate faculty and those students enrolled for studies beyond a baccalaureate degree. The administrative head is the Dean of Graduate Studies who is ultimately responsible for all graduate course offerings as well as the programs of study of individual graduate students.

The supervision of graduate programs and related research projects within the College of Pharmacy is delegated by the Dean of Graduate Studies to the Graduate Studies Committee of the College of Pharmacy. This Committee consists of graduate faculty within the college and is headed by a chair elected by the graduate faculty. An administrative sub-committee, made up of representatives from each graduate division, reviews policies and students' progression in the program.

A. Graduate Adviser

The College of Pharmacy Graduate Adviser has overall responsibility for graduate student recruitment and for the counseling and academic advising of graduate students in the College of Pharmacy. Preliminary courses for Pharmacotherapy graduate students are standardized. After the student chooses a Major Professor, that professor assumes the primary responsibility for academic advising and supervision, although paperwork must still go through the office of the Graduate Adviser. Further information and assistance can be obtained from the **Pharmacotherapy Division Graduate Adviser** and the **College of Pharmacy Graduate Coordinator**. The staff of the **UT Office of the Vice-President and Dean of Graduate Studies** is also available to assist graduate students.

Position	Contact	Room	Phone	E-mail
Pharmacotherapy Division Head	Dr. David Burgess	MCD 3.410	(210) 567-8329	burgessd@uthscsa.edu
Pharmacotherapy Division Graduate Adviser	Professor Jim Koeller	MCD 3.422	(210) 567-8339	koeller@uthscsa.edu
College of Pharmacy Graduate Adviser	Dr. Carlton Erickson	PHR 4.220	(512) 471-5198	erickson.carl@mail.utexas.edu
College of Pharmacy Graduate Coordinator	Ms. Mickie Sheppard	PHR 4.220	(512) 471-6590	mickies@mail.utexas.edu
College of Pharmacy Associate Dean for Research & Graduate Studies	Dr. Carlton Erickson	PHR 4.220	(512) 471-5198	erickson.carl@mail.utexas.edu

III. ADMISSION AND REGISTRATION

A. Admission

The requirements for admission to the Pharmacotherapy Program are as follows:

1. A Pharm.D. or equivalent degree from an accredited United States institution or proof of an equivalent degree and training at a foreign institution.
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) of ≥ 1000 on the combined verbal and quantitative scores. 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). A minimum score of 213 (computer-based test) or 79 (internet-based test) on the TOEFL or an overall band of 6.5 on the Academic Examination of the International English Language Testing System (IELTS) is required for applicants from countries where English is not the native language. Scores on TOEFL tests taken more than two years prior to the date of matriculation are not acceptable.
4. Adequate subject preparation for the proposed graduate major.
5. Submission of complete University and College of Pharmacy Graduate Application Forms.
6. Three letters of recommendation from individuals who are well acquainted with the applicants' academic work and moral character.
7. An interview with the Pharmacotherapy faculty, if requested.

Applicants are not guaranteed admission even though they meet these minimum requirements. The Pharmacotherapy Division reviews all complete applications. The Vice President and Dean of Graduate Studies must approve all admissions.

Applicants will be admitted to the graduate program upon recommendation of the Pharmacy Graduate Studies Committee, provided that their previous academic training included appropriate work in fields related to the health sciences. Applicants without the appropriate background may need to complete additional course work during their career within the College. 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 Division Graduate Adviser.

1. Admission with Conditions

Almost all of the applicants who are admitted to the Graduate School have qualifications equal to or higher than the minimum standards outlined above. However, Pharmacotherapy faculty may recommend, with the consent of the Graduate Dean, that an applicant who does not meet these minimum standards be admitted to the Graduate School with conditions. The Graduate Adviser 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 also may be required to remedy deficiencies in academic preparation by taking undergraduate upper-division or graduate courses. The Graduate Adviser notifies the student of these conditions at the time of their admission. A student who does not fulfill the conditions within the specified time may be barred from subsequent registration in the Graduate School.

2. Admission as Not-a-Degree Student

Applicants who are eligible for admission to the Graduate School but who wish to take courses without becoming candidates for advanced degrees may apply to a graduate program as not-a-degree students. Under certain conditions, not-a-degree students may petition their Graduate Studies Committee to recommend to the graduate dean that they become degree candidates. The term "not-a-degree student" should not be confused with "non-degree student," which is used to identify the student who holds a bachelor's degree, is enrolled as an undergraduate, and is not seeking a second degree.

B. 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 Pharmacotherapy admissions committee, faculty and the Graduate Adviser must approve readmission. A student who has been admitted to candidacy for the doctoral degree must register every fall and spring semester as described in the section "Continuous Registration."

C. Course Registration

1. Registration for New Graduate Students

Applicants are notified by email of their admission or denial to the Pharmacotherapy program. Admitted applicants should notify the Graduate Coordinator for Pharmacy as soon as possible whether they plan to accept admission. Either in an interview or by correspondence, the admitted applicant will be provided with further information on the program, including information on course registration.

University students register for each semester and summer session through the online registration system (ROSE). Complete information about ROSE and the registration process is given in the *Course Schedule*. Check with your faculty adviser, the Pharmacotherapy Division Graduate Adviser, and the Graduate Coordinator before registering.

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 Adviser and a late fee is imposed. After this period, consent of the Graduate Dean is required.

3. Registration for Continuing Graduate Students

Registration in the Graduate School beyond the first semester or summer session depends on the student making 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." Students should make an appointment with the Pharmacotherapy Division's Graduate Adviser before registering for courses in order to obtain approval and also to update their progression worksheet. All electives must be approved in advance by the Academic Adviser.

D. Course Load

1. Full-Time Course Load

The University of Texas and the Pharmacotherapy Division recognize nine credit hours during a long-session semester and three credit hours during a summer session as the minimum full-time load. Agencies that grant loans or provide for educational funding may establish different definitions of full-time status. The student should be familiar with the regulations of any agency to which he or she has an obligation.

2. Maximum Course Load

The maximum course load for a graduate student is fifteen credit hours in a long-session semester or twelve credit hours in a twelve-week summer session; a student whose maximum period of summer registration is nine weeks may register for no more than ten credit hours. Registration in excess of these maximums will be permitted only under exceptional circumstances and must have the recommendation of the Major Professor and the Pharmacotherapy Division Graduate Adviser, as well as the approval of the Graduate Dean.

E Adding and Dropping Courses

Before adding or dropping a course students must get approval from their Major Professor and the Pharmacotherapy Division Graduate Adviser. Students should also contact the Pharmacy Graduate Coordinator before adding or dropping courses.

Before classes begin, a student may add or drop a course through ROSE, or equivalent process in San Antonio, as described in the *Course Schedule*. The student may also add or drop a course through ROSE, or equivalent process in San Antonio, during the first four class days of a long-session semester (open access period). From the fifth through the twelfth class day, he or she may add or drop a course, with the Major Professor and the Pharmacotherapy Division Graduate Adviser's approval, in the office of the department in which the course is given. The Pharmacy Graduate Coordinator will handle all Pharmacy adds/drops after the open access period. After the twelfth class day, the student may add a course only under rare and extenuating circumstances and the Graduate Dean must approve it.

In each summer-session term, the student may add or drop a course through ROSE, or equivalent process in San Antonio, during the first two class days (open access period). On the third and fourth class days, he or she may add or drop a course, with the Major Professor and the Pharmacotherapy Division Graduate Adviser's approval in the office of the department in which the course is given. The Pharmacy Graduate

Coordinator will handle all Pharmacy adds/drops after the open access periods. After the fourth class day, the student may add a course only under rare and extenuating circumstances approved by the Graduate Dean.

A student may drop a course with the Major Professor's and the Pharmacotherapy Division Graduate Adviser's approval through the last class day of a semester or summer term. He or she receives a refund for the course dropped by the twelfth class day of a long-session semester or by the fourth class day of a summer term. From the thirteenth through the twentieth class day of a long-session semester, and from the fifth through the tenth class day of a summer term, the student may drop a course with no academic penalty; the symbol Q is recorded. If the student drops a course after that time, the instructor determines whether the symbol Q or a grade of F should be recorded. A course cannot be dropped after the twelfth class day if the drop will lower the student's enrollment below the minimum required enrollments of nine credit hours in the long sessions and three credit hours in the Summer.

If the student is in a warning status because of failure to maintain a grade point average of at least 3.00, he or she may not drop a course without the recommendation of the Major Professor and the Pharmacotherapy Division Graduate Adviser and the approval of the Graduate Dean.

Specific deadlines for adding and dropping courses are given in the academic calendar.

F. Withdrawal from the University

Dropping an entire course load constitutes withdrawal from the University for that semester.

To withdraw from the Graduate School, the student must file with the Graduate Dean a withdrawal petition, a form that also explains refund policies. A current semester's fee receipt and identification card must be presented. The student may withdraw through the last class day of the semester. If the student abandons his or her courses without withdrawing, the instructor in each course determines whether the symbol Q or a grade of F should be recorded.

Students in a warning status because of failure to maintain a grade point average of at least 3.00 may not withdraw without the recommendation of the Major Professor and the Pharmacotherapy Division Graduate Adviser and the approval of the Graduate Dean.

IV. RESIDENCE

Each student must be enrolled in residence as a full-time student for at least two semesters or the equivalent and must complete the major portion of the degree program under the supervision of the Graduate Faculty at The University of Texas at Austin.

No student may receive advice and assistance from a member of the faculty in the preparation of the thesis or dissertation without being registered (if necessary, for multiple semesters) for the appropriate thesis or dissertation course. Registration for the doctoral dissertation course work or the fall-back master's thesis course must have covered a longer period than one long semester (or two five-week summer sessions). Doctoral candidates must register continuously in the long sessions of the University from the time they enter candidacy until they receive their degree.

V. GRADUATE CREDIT

A. Grades

1. Letter grades

In the Graduate School, credit is given for the grades A, B, and C. Every semester hour with a grade of C must be balanced by one with a grade of A, because an overall grade point average of at least 3.00 is required for the degree.

Within the overall grade point average, the student must earn a grade point average of at least 3.00 in all upper-division and graduate courses in the major and in the supporting work. High grades in courses outside the major and the supporting work will not serve to bring up these averages. On the other hand, high grades in the major and the supporting work may raise the overall average, provided they are in upper-division or graduate courses.

Grades from other institutions are not included in the grade point average. Only undergraduate upper-division and graduate-level courses taken in graduate status for a letter grade at The University of Texas at Austin are counted in the average; thesis, report, and dissertation courses are not counted.

2. Credit (CR)/no credit (NCR)

Course work requirements and methods of evaluation in a course must be the same for students registered on the credit/no credit basis; satisfactory completion of all course requirements will result in a grade of CR. Courses taken on the credit/no credit basis are not included when the grade point average is computed. All regulations regarding registration on the credit/no credit basis apply to all courses, both undergraduate and graduate, taken by graduate students. No more than 20 percent of the hours on the Program of Work for a master's degree and a comparable portion of the Program of Work for a doctoral degree may have been taken on the credit/no credit basis.

Thesis and dissertation classes are graded on a CR/NCR basis only. Dissertation "R" courses (399R, 699R, 999R) always get an asterisk as a grade, as do thesis "A" (698A) courses. When a student does not complete the document in question by the end of the first semester in "W" or "B," an asterisk is still the correct grade to report. The only time a "CR" or an "NCR" is given is when the document has been completed and graded. At the time a CR or NCR is posted for the W or B course, the same grade will automatically be posted to the R or A course.

3. Incomplete grades

The symbol X may be reported in cases where the student has not completed all the assignments in a course before its conclusion. With the approval of the Graduate Dean's office, the instructor may convert the symbol X into a grade, if such conversion is made by the last class day of the student's next long semester of enrollment. Otherwise, the incomplete becomes permanent and the symbol X is converted to the symbol I, which remains on the record. Courses for which the symbol X is recorded may not be used to fulfill degree requirements. Students with any combination of two X or I grades are not eligible for TA or RA funding. Improper uses of the symbol X are listed in the *General Information* catalog.

4. Prohibition of ex post facto credit

The Graduate School does not grant ex post facto credit. With the appropriate approval, an upper-division student, a non-degree undergraduate, or a transient summer student may take any graduate course for which

he or she has fulfilled the prerequisite. However, credit will not be granted toward a graduate degree; a student who is later admitted to the Graduate School cannot petition for ex post facto credit.

B. Transfer of Credit

Ordinarily, all work for the master's degree must be done at The University of Texas at Austin. Under some circumstances, a maximum of six semester hours of graduate course work in which the grade is A or B may be transferred to the Program of Work from another United States institution, but only on the basis of a petition by the Graduate Studies Committee and with the approval of the Graduate Dean. A student seeking a transfer of credit must provide the Graduate Studies Committee with an official transcript and an official explanation of the course numbering system at the school at which the credit was earned. Only graduate courses may be transferred. Courses designed for both graduate and undergraduate students may not normally be transferred at the graduate level, even if the school at which they were taken would have allowed them to be used toward a graduate degree. If a transfer of credit is approved, the student must still meet the residence requirement of two full semesters or the equivalent. No course work listed on the Program of Work may be over six years old. Course work may not be transferred from institutions outside the United States.

No formal petition is necessary for course work from other institutions to be used on the doctoral Program of Work, but use on the Program of Work is subject to the recommendation of the Pharmacotherapy faculty and the College of Pharmacy Graduate Advisor and the approval of the Graduate Dean when application for candidacy is made.

C. Correspondence Credit

Courses taken by correspondence may not be counted toward graduate degrees.

D. Credit by Examination

Credit by examination may not be counted toward graduate degrees.

E. Courses Counted Toward another Degree

No course counted toward another degree may be counted toward a master's degree, either directly or by substitution. Work done while pursuing the master's degree may be included in the work for the doctoral degree, provided it is acceptable to the Supervising Committee, the Graduate Studies Administrative Subcommittee, the College of Pharmacy Graduate Advisor and the Graduate Dean and provided it has not already been used toward another doctoral degree.

F. Warning Status and Academic Dismissal

To remain in the Graduate School beyond the first semester or summer session, a student must make satisfactory progress in absolving any admission conditions that were imposed by the Graduate Studies Committee. If the student fails to remove admission conditions, the Committee may recommend that he or she be dismissed.

To remain in the Graduate School, a student must maintain an overall grade point average of at least 3.00. The overall grade point average includes all upper-division and graduate course work the student has taken while enrolled in the Graduate School. If this grade point average falls below 3.00, the Office of Graduate Studies will warn the student that his or her continuance in the Graduate School is in jeopardy.

During the next semester or summer session in which the student is registered, he or she must raise their overall grade point average to at least 3.00 or be subject to dismissal; during this period the student may not drop any course or withdraw from the University without the approval of their Supervising Professor, the College of Pharmacy Graduate Advisor and the Graduate Dean.

A student who has been dismissed from the Graduate School may be readmitted to the Pharmacotherapy program by petition to the Pharmacotherapy faculty, or may be readmitted to another program by a petition to that program. This petition must be approved by the Graduate Dean.

Academic dismissal is reflected on the student's academic record; removal from warning status is reflected by the statement "Probation ended." A change in status caused by the conversion of an incomplete to a letter grade or by a change in grade is reflected only in the final grade report of each semester.

VI. TIME LIMITS

A. Master's Degree

All requirements for a master's degree must be completed within one three-year period. Work over three years old can be reinstated only with the permission of the Graduate Dean, upon recommendation of the Pharmacotherapy faculty. All completed work that is included in a master student's degree program at the time of admission to candidacy must have been taken within the previous three years (excluding three years of military service).

B. Doctoral Degree

All requirements for a doctoral degree must be completed within one 5-year period. Work over five years old can be reinstated only with the permission of the Graduate Dean, upon recommendation of the Pharmacotherapy faculty. All completed work that is included in a doctoral student's degree program at the time of admission to candidacy must have been taken within the previous five years (exclusive of a maximum of three years of military service).

C. Minimally Acceptable Progress

In order to remain in the PhD program, a student must continue to make progress toward the degree. The following progression time-lines have been established as minimally acceptable progress. All students are required to satisfy these conditions. If a requirement is not satisfied by the year shown, the student will be placed on academic probation in that semester. If the requirement is not satisfied by the following semester, the student will be placed on final probation. Failure to satisfy any requirement within two semesters of the deadline will result in re-evaluation of your continuation in the program by Pharmacotherapy faculty and possible dismissal from the program.

Minimally Acceptable Progress

- Pass all required coursework requirements – end of year 3
- Pass all qualifying exams – end of year 3
- Pass proposal defense – end of year 4
- Pass dissertation defense - end of 5 years

VII. THE DOCTOR OF PHILOSOPHY DEGREE

A. Background

The Doctor of Philosophy is a research degree designed to prepare students to discover, integrate, and apply knowledge as well as to communicate and disseminate it. The degree emphasizes development of the capacity to make significant original contributions to knowledge within the context of free inquiry and expression. The student pursuing this degree is expected to develop the ability to understand and to evaluate the literature of his or her field and to apply appropriate principles and procedures to the recognition, evaluation, interpretation, and understanding of issues at the frontiers of knowledge.

B. Ph.D. in Pharmacy (Pharmacotherapy) Mission Statement

The mission of this graduate program in Pharmacotherapy at the College of Pharmacy is to produce an individual educated and trained to conduct translational research integrating both science and practice. The graduate will be able to independently engage in the discovery, dissemination, and application of pharmaceutical and biomedical knowledge to improve the health status of society.

C. Graduate Competencies

There exists an increasing need in academia, pharmaceutical industry, private research corporations, and public health and governmental agencies for pharmacy scientists who have a strong comprehension of the basic sciences, understand the fundamentals of clinical research, and are able to develop hypotheses and conduct research that bridges the two. The graduate with a Ph.D. in Pharmacy (Pharmacotherapy) will be:

1. Skilled as a scientist. He or she should be able to observe phenomenon, propose research questions, generate hypotheses, conduct systematic experimentation and data collection, and revise models to reflect increased understanding;
2. Able to conduct independent research in pharmacotherapeutics and the biomedical sciences;
3. Clinically competent in a specialty area of pharmacy practice which complements their research focus;
4. Capable of communicating, at the appropriate level, research and clinical findings to pharmaceutical, medical, and basic science audiences, and
5. Capable of competing successfully for peer-reviewed grants.

D. Program of Work

See **Appendix B** as an example of the Program of Work.

E. Qualifying Examination and Committee

1. Guidelines

The intent is for all Ph.D students to be able to enter candidacy no later than the end of their second year, preferably this process can start one and one-half years into their program. By this time, the student should

have completed the bulk (>75%) of essential course work that would allow them to initiate the qualifying exam process. Your Major professor and Division Graduate Advisor need to be informed of your intentions and can help verify that essential course work has been completed.

2. Procedure

At the beginning of the semester in which qualification examinations will be undertaken, the student, with the approval of their Major professor, should notify the College of Pharmacy Graduate Coordinator that candidacy is approaching

3. Qualifying Exam Committee

An examining committee will be formed, consisting of the student's Major Professor, at least three other College of Pharmacy faculty who are Graduate Studies Committee members, and an additional member who is outside the College (for a total of 5) (selected by the student in consultation with his/her Major Professor, the Pharmacotherapy Division Graduate Adviser) (**Appendix A**). At the time of committee formation, a memo must be submitted to the Pharmacotherapy Graduate Adviser and the Division Head. The Major Professor serves as the committee chair.

4. Qualifying Exam Procedures

There are two parts to the exam. The first part of is a written exam with questions set by members of the Qualifying Committee. Each exam is designed to test the student's general pharmacotherapy background in the form of assignments. One of the questions will be to prepare a grant proposal (related to your field but not your specific research project) that should not exceed 12 pages. Another question will involve a mini-review related to your specific research topic. Two additional questions will also be provided and will include items such as, but not limited to, data analysis exercises, abstract writing, or patent application writing. Three months will be given to complete this written section. Upon the successful completion of the written section, the student will advance to the second oral part.

The second part of the exam is oral. The student will prepare an oral presentation of their dissertation proposal. The intent is to deliver preliminary explanation of a proposed dissertation project. This preliminary explanation will need to be defended later in front of the student's dissertation committee (Note: the members of the qualifying exam and dissertation committees can be different). This should include background, methods, and proposed analysis. Students are expected to utilize a power point presentation to present their proposal. The 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. Although no specific amount of time is required for this section of the exam, it is typically one hours in length. Any changes requested should become part of the final, formal written proposal which will be required once student enters candidacy.

5. Outcomes

A student may be allowed to repeat the written and oral qualifying exam sections, at the discretion of a majority of committee members. However, a student is only allowed one re-examination. The decision to allow the student to transfer to a terminal master's program may also be made at this time or at a subsequent meeting. If the qualifying examinations are not passed, the examining committee may:

1. Recommend that the student be allowed to retake the examination(s)
2. Require that the student take further coursework for better preparation; or
3. Recommend that the student be terminated from the graduate program.

6. Entrance to Candidacy, Documentation, and Notification

After the qualification examination, specific paperwork and attendance at an Administration Subcommittee (ASC) meeting (held in May, August, and December) for review of candidacy will be required before the student can officially advance to doctoral candidacy. The student should also complete the Intellectual Property (Copyright) Tutorial certification and Statement of Research with Human Participants form. Specific information on each can be found on the University of Texas Graduate School website at <http://www.utexas.edu/ogs/pdn/>. The candidacy application is electronic. All non-Graduate Studies Committee members must submit a copy of their vita; a letter of non-remuneration also is required from non-University of Texas members. The Pharmacotherapy Division Graduate Adviser and the College of Pharmacy Graduate Coordinator will help the student to properly meet these requirements.

The satisfactory completion of these requirements, along with a B or better in all required didactic courses, will allow the student to apply to enter Ph.D. candidacy. A student may progress to candidacy with only a few (<25%) outstanding required coursework and only with prior approval of the Pharmacotherapy Division Graduate Adviser. Candidacy is formally approved by the Graduate School following application to the Administrative Subcommittee of the Graduate Studies Committee. The Graduate Coordinator will assist the student with the formal application procedures to enter candidacy. Additionally, an update to the checklist 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 committee will consist of the student's Major Professor, at least 3 other College faculty who are Graduate Studies Committee members, and an additional member who is outside the College (for a total of 5) (**Appendix A**). The student consults with their Major Professor and the Academic Adviser concerning the composition of this committee. At the time of the committee formation, a memo must be submitted to the Pharmacotherapy Graduate Advisor. The College Graduate Adviser nominates these members to the Graduate Dean Based upon the Graduate Adviser's nomination, the Graduate Dean 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. The non-UT College of Pharmacy member of a committee must provide a copy of their CV and a letter stating they will serve on the committee at no cost to UT Austin.

8. Formal Proposal

Once in candidacy, the student will make all appropriate modifications and corrections to their oral presentation and create a formal written dissertation proposal. This proposal will go to their dissertation supervisory committee for approval. Once this written proposal is approved, the student can then complete their research and prepare for their dissertation defense.

9. Dissertation Defense

Approximately thirty days before the thesis defense, the members of the dissertation supervisory committee are provided with unbound 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 dissertation abstract, the *vita*, title page, and Committee Certification of Approved Version (unsigned) for a format check. The abstract must be approved by the supervisory committee before it is sent to the Office of Graduate Studies. The abstract will be published in *Dissertation Abstracts International*. The committee's decision to approve a dissertation must be approved by a majority vote. A tie will be decided by the Major Professor.

10. Timetable for Progression to Ph.D. Candidacy and 99-hour Rule

The guidelines stated above are intended to keep students on track to receive their Ph.D. degree within 5 years after entering the program (considered a minimum standard). 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 insuring 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 a terminal master's degree program if that is deemed appropriate by the student's academic advisers.

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 five 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 Dean. 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 web site maintained by the Office of Graduate Studies (<http://www.utexas.edu/ogs/publications/index.html>).

11. **Graduate Forms and Instructions, Ph.D. Degree**

Specific due dates, forms and guidelines are available on the Office of Graduate Studies (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 the semester during which 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 the Request for Final Oral Examination to the Graduate School after committee members have read and approved the dissertation. The request for the final oral examination should be made two weeks prior to the date of the exam. When submitting the Request for Final Oral Examination, the student must also submit one copy each of their vita, dissertation abstract, title page, and Committee Certification of Approved Version. The abstract will be published in Dissertation Abstracts International (it is hoped that this will be neither the student's first nor last publication). 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 examination. The paperwork may be submitted in person at the Graduate School by the established deadline for the semester in which you will graduate.
 - a. The completed dissertation must be uploaded to UMI/Proquest prior to submitting the other required paperwork.
 - b. Committee Certification of Approved Version (dissertation signature page)
 - c. Additional Title Page
 - d. Publication by University Microfilms International (UMI/Proquest) (this confirms you have understood by submitting to UMI that you agree UMI is your publisher. All dissertations must be published; this is a requirement for the degree)
 - e. Copyright Disclaimer
 - f. Survey of Earned Doctorates
 - g. Abstract and Vita
 - h. Intellectual Property Tutorial Certification
 - i. Statement on Research with Human Participants
 - j. Dissertation Publishing Agreement for the University of Texas General Libraries
 - k. Publication and Processing Fees
5. The Report of Final Oral (gold sheet) must be signed by Dr. Marvin Shepherd, the Chairman of the

Graduate Studies Committee and is submitted to the Graduate School by the student, Supervising Professor, or Pharmacy Graduate Coordinator.

12. Publication of Dissertation

The candidate is responsible for expenses connected with preparing the dissertation, although the supervisory professor may provide assistance in the form of supplies. The student should check with the Graduate Studies Office about the cost.

13. 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.

VIII. THE MASTER OF SCIENCE DEGREE

A. Background

While the primary responsibility of pharmacy education is to prepare competent entry-level practitioners, an equally important societal and professional need is the development of programs to educate and train a small cadre of advanced clinical practitioners drawn to science and academia in Pharmacy. The Millis and Pew Commission Reports clearly identified the need for Pharmacy to develop programs that would train young men and women in the science and practice of pharmacy. There is a growing need for advanced practice pharmacists with a firm grounding in scientific research and evidence-based practice. The MS program is designed to be the appropriate 'terminal' degree for the advanced practice clinician who brings science to practice. The maturation of clinical pharmacy and the widespread adoption of pharmaceutical care as the cornerstone of pharmacy practice are evidenced by changes in standards and regulations. Collaborative drug therapy practice in Texas and in over 30 other states, allows pharmacists to assume primary care responsibilities for patients (e.g., disease management and the ordering of medications and laboratory tests). Pharmacotherapy practitioners provide patient care responsibilities at the specialist level, apply science to practice, and contribute to the body of pharmacotherapeutic knowledge through scholarship and services innovation.

The Pharmacotherapy Division of the College of Pharmacy, University of Texas at Austin, has developed a Masters degree (Pharmacy) with thesis, which is offered alone or concurrently with a specialty practice residency. This unique program capitalizes on San Antonio Faculty strengths in both science and practice, and results in a uniquely qualified graduate capable of making significant contributions to pharmacy practice, research, and education.

B. M.S. in Pharmacy (Pharmacotherapy) Mission Statement

The mission of the MS graduate program in Pharmacotherapy at the College of Pharmacy is to produce an individual educated and trained to provide advanced practice pharmaceutical care at a level commensurate with Board Certification. Moreover, the graduate will be prepared to successfully assume roles as a collaborator and investigator capable of developing research strategies that bring science to practice. The capability of graduates to engage in the discovery, dissemination, and application of pharmaceutical and biomedical knowledge to improve the health status of society will distinguish our graduates from individuals completing traditional residency programs.

C. Graduate Competencies

Graduates of this program are expected to:

1. Make significant contributions to improving health outcomes in patients by bringing science to practice. They should be able to integrate patient-specific characteristics with an evidence-based approach in providing pharmaceutical care for patients.
2. Become skilled collaborators/investigators who observe phenomenon, propose research questions, generate hypotheses, conduct systematic experimentation and data collection, and revise practice and treatment models to reflect new knowledge. They should engage in creative processes and scholarship, ranging from practice based descriptive research to bench top inquiries.
3. Develop clinical competence in a specialty area of pharmacy practice, which complements their research focus.
4. Communicate at the appropriate level, research and clinical findings to pharmaceutical, medical and basic science audiences.
5. Provide compassionate and individualized pharmaceutical care to patients requiring treatment. They should be able to develop, maintain, and evaluate pharmaceutical services that lead to improved patient care, and should be dedicated to providing exemplary patient care while maintaining a commitment to the highest ethical standards.
6. Become actively involved in learned societies and in professional organizations.
7. Demonstrate the desire for life-long learning and improvement.

D. Major Professor

Incoming students generally will choose a Major Professor by the end of the first fall semester. During this time, each new graduate is expected to talk with Pharmacotherapy Division faculty to aid in making this decision. Upon choosing an area of specialization, the student should approach and obtain approval from a faculty member within the division to serve as their Major Professor (**Appendix A**). If the Major Professor is not a member of the Graduate Studies Committee (GSC), then a co-Major Professor who is a member of the GSC must be identified (**Appendix A**).

In consultation with the Major Professor, Pharmacotherapy Graduate Adviser, and Division Head, students are permitted to change Major Professors during the course of their program if this will enhance their progress toward a degree (**Appendix A**). This change should occur before the student enters candidacy. Changes after candidacy are possible, but are likely to substantially slow a student's progress in meeting their degree requirements.

E. Supervising Committee

Each master's degree program is developed under the guidance of a Supervising Committee composed of two members of the GSC, one of whom is designated as supervisor. In addition, one or more faculty who may or may not be a member of the GSC can be named to the committee. The Major Professor or at least one of the co-Major Professors must be a member of the GSC in the major area (Pharmacotherapy). The Supervising Committee is responsible for the quality, depth, and balance of the student's educational experience. The

student, working with their Major Professor, selects committee members (**Appendix A**). Students must obtain approval from prospective committee members to serve on their Supervising Committee. The student and Major Professor are encouraged to name faculty from other divisions within the College of Pharmacy when their addition to the committee will enhance the quality and breadth of the student's work. The Supervising Committee needs to review and approve the student's research project. Non-UT Austin members of a committee must provide a copy of their CV and a letter stating they will serve on the committee at no cost to UT Austin.

Documentation of all committee meetings must be provided by the Major Professor to both the Pharmacotherapy Division Graduate Adviser; a copy of this documentation will be kept with the student file held by the Division.

F. Program of Work

Each program must include at least thirty semester hours of graduate-level course work, including the thesis (see Master's Checklist for specific coursework requirements). The thesis is prepared under the direction of the Major Professor who is chairman of the Supervising Committee appointed by the Graduate Dean; it is subject to the approval of the Committee and ultimately to the approval of the Graduate Dean. A minimum of six semester hours of credit are granted for research and writing the thesis. Course 698A (research project) must precede course 698B (writing period); 698A may not be repeated. Both 698A and 698B must be taken on a letter-grade basis. The student must register for 698B the semester he or she intends to graduate (this course can be repeated, if necessary). The thesis cannot be accepted before the semester in which the student applies for graduation.

The program of work includes four critical components:

1. The completion and defense of a thesis project;
2. The completion of didactic coursework (**See Appendices C and D**);
3. The completion of structured experiential components containing structured opportunities for skills development and scholarship (**See Appendix E**); and
4. The completion of supporting coursework in an area of specialization within advanced practice and science (see below).

Additionally, and separate from the degree's program of work, is the expectation that a majority of students will complete a concurrent specialty practice residency.

G. Graduation Guidelines

At the beginning of the semester of intended graduation and by the deadline established by the Graduate School, the candidate must submit the Master's Graduation Application Form online. The online Master's Graduation Application Form automatically routes first to your departmental graduate adviser for approval and then to a degree evaluator in the Graduate School for final approval. The Master's Graduation Application Form is valid for one semester only and a new application must be submitted if your semester of graduation changes.

H. Oral Defense

An oral defense of the thesis is required. A complete draft of the thesis (including the title page, abstract, table of contents, text, references, tables, and appendices) must be submitted to each member of the Committee at least two weeks before the defense date. University-wide formatting guidelines must be followed. Theses must follow the guidelines of the graduate school format booklet, *Format for the Master's Thesis and Report*. A format check for either electronic or print versions is recommended before turning in your completed work. If the format check is not done prior to submission of your completed work, one will be done at that time. The defense date must be set to allow ample time for revisions. Non-committee Pharmacotherapy Division faculty and graduate students may be invited by the Major Professor to attend the defense as observers.

If the student does not pass the oral thesis defense, a second opportunity will be given after an appropriate period to allow for further preparation. If the student does not pass the oral thesis defense after repeating it, the student will be dropped from the graduate program.

Once the oral thesis defense is successfully completed and revisions to the thesis have been made, the student must submit the thesis to the Graduate School by the deadline.

I. M.S. Graduation Procedures

To graduate, candidates must

1. Be registered in PHR 698B (Thesis) in the semester or summer session in which they plan to graduate.
2. Pass the oral thesis defense.
3. File the Master's Graduation Application Form, including the Program of Work, with the Office of Graduate Studies. This on-line application must be filed early in the graduation semester. It will trigger automatic submission of the final M.S. Program of Work.
4. Submit the thesis to the supervising committee by the deadline the committee establishes.
5. Submit the thesis to the Office of Graduate Studies for final approval by the graduate dean no later than the published deadline. The thesis may be submitted in electronic format (a pdf file on a CD) or printed format (the traditionally bound version printed on cotton paper) but the format must follow the guidelines published online. Either format requires additional printed copy of the following pages to be submitted separately from the thesis: title page, signature page (with original signatures of your supervising committee as listed on your Master's Graduation Application Form), and your abstract.

Note: It is the student's responsibility to give a bound copy of the final version of the thesis to each member of the Supervising Committee. At the beginning of the semester during which the thesis will be completed, the student should check with the College of Pharmacy Graduate Coordinator regarding the cost of thesis binding.

IX. 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 Adviser and/or Chair of the Graduate Administrative Sub-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>).

X. FINANCIAL SUPPORT

The graduate student should check with the Major Professor or Pharmacotherapy Graduate Adviser for availability of financial support during their tenure in the graduate program. Although a variety of assistantships may be available, these are given for services rendered, and should not be construed exclusively as a subsidy for graduate education.

A. Teaching Assistantships (TAs)

Teaching Assistantships may be provided as a form of support of students. The stipends for a Teaching Assistant vary from year to year. The usual expectation for a Teaching Assistant is to spend approximately 20 hours per week in the performance of duties. The duties of a TA may include, but are not limited to providing lectures in undergraduate Pharmacotherapy classes, developing exams/assignments, proctoring exams, grading exams/assignments, recording grades, conducting library-related research, maintaining office hours, leading laboratory discussion sessions, and presenting lectures. TAs are also expected to meet all requirements established by the Supervising Professor to ensure satisfactory progress toward a degree.

B. Research Assistantships (RAs)

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. The Major Professor determines the duties of the Research Assistant. Salaries and wages for Research Assistants are found on the student academic appointments rate information website: <http://www.utexas.edu/hr/comp/studentrates.html>.

C. University Fellowships

These are awarded to first year and advanced graduate students based on departmental nomination. Selections are made based on merit (e.g., GRE score), rather than need.

D. Outside Foundations

Foundations, such as the American Foundation for Pharmaceutical Education, provide fellowship aid. The student should check with the Division Graduate Adviser, Major Professor, or Graduate Coordinator for assistance in applying to an outside agency for support. Additional sources of aid can be found in directories located in the Graduate Student Office. There are also numerous web sources of information students can consult.

XI. 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 and assists in obtaining funds for students wishing to attend professional meetings to present papers or participate in job interviews. Also, the PGSA provides a means for selection of graduate student representatives for the Graduate Administrative Sub-committee, Graduate Council, and Graduate Assembly.

XII. OTHER IMPORTANT INFORMATION

A. Keys

Keys for the Pharmacotherapy graduate student offices will be provided. Do not lend your keys to anyone. To minimize theft of personal property such as computers, books, or purses, the graduate student offices should be locked at all times. The main pharmacy office will be locked on weekends and after 5:00 PM on weekdays.

Each graduate student will receive an access card to enter the McDermott Clinical Sciences Building on holidays, weekends, and evenings.

B. Photocopying, Office Supplies, Phone, and Mail

The Pharmacotherapy Division photocopier may be used for research and TA-related uses. The Division is charged for each copy made; thus, you are asked not to make personal copies on the copy machine. Do not use the copy machine to copy books or course packets. Doing so is a potential violation of copyright law and an unnecessary expense to the division. Please use these resources wisely and do not abuse your access to the copy machine, library copy cards and office supplies.

Telephones and fax machines in the Pharmacotherapy Division are for business purposes. The graduate student should not make or receive personal telephone calls, except on a very limited basis. No long distance personal phone calls may be charged to the Division. Long distance calls involving University business require an access code that can be obtained from your Major Professor, Division Graduate Adviser, or Division Head. This code is confidential and must not be given to others. The phone number for the graduate student offices is (210) 567-8355.

Your mailing address at the university is:

Your Name
Pharmacotherapy Education and Research Center
University of Texas Health Science Center at San Antonio
7703 Floyd Curl Drive, MSC 6220
San Antonio, TX 78229-3990

For University of Texas at Austin campus mail, the Pharmacotherapy Division mail code is A1945.

C. Mail

Each graduate student and faculty member has a mailbox in the Pharmacotherapy offices. Please check your mailbox and e-mail at least every other day. Material that is routed to all graduate students will have a routing slip attached to it. After reading the routed material, check your name off the list and put it in the mailbox of the next person on the list.

D. Computers

Students are required to have a personal computer capable of running the software used in this program.

A variety of computers and printers are located in the student computer laboratory. Please use them appropriately; do not keep your personal files on the hard drives and clean up the computer area when you are finished.

E. Absence Records

You must fill out an Absence Record prior to any travel on university-related business or personal travel during your normal business hours. If you are traveling for personal reasons, make sure your Supervising Faculty knows when you will be gone and how to reach you. Because TA and RA appointments extend over the break between semesters, you must complete an Absence Record if you travel (personal or university-related) during the break between semesters. This form is necessary for insurance purposes and provides the division with an emergency telephone number. Absence record forms are available from your administrative support person.

F. Teaching Assistant Assignments

A variety of Teaching Assistantships (TAs) are available for Pharmacotherapy graduate students. Selection of students for TA assignments is based on the needs of the College and the qualifications of the student.

G. Performance Evaluation

The performance of Teaching Assistants will be evaluated by the course supervisor each semester. The performance of Research Assistants will be evaluated by the research supervisor on an annual basis. These performance evaluations will be discussed with the TA/RA and will be forwarded to the Division Head.

The Pharmacotherapy faculty will evaluate each student's progress in the program each Fall and Spring semester. The evaluation will consider performance based on: 1) coursework; 2) projects; and 3) teaching and research assistantships. Each student will be required to complete a progress report each semester (**Appendix F**). Based on these evaluations, faculty will rate the student's progress as either satisfactory or unsatisfactory. These ratings will be used as a tool to: 1) provide constructive feedback (e.g., assignment of new student objectives and a schedule for completion) to ensure timely progression in the program; and 2) recommend whether or not a student should continue in the program.

H. Outside Employment

Graduate students are not prohibited from involvement in off-campus activities or employment, as long as these outside activities do not interfere with coursework or divisional responsibilities. Excessive involvement in other activities can slow your progress in the graduate program.

I. Seminar

All graduate students must register for and attend the Pharmacotherapy seminar classes as offered in the curriculum and listed in the Plan of Work in **Appendix B & D**. These seminars are intensive interactive sessions focusing on principles of evidence-based practice, leadership skills and training, professional affairs and ethics, scientific breakthroughs, and other topics of timely and topical interest.

J. Membership in Professional Associations

Graduate students are encouraged to join and participate actively in professional pharmacy organizations such as the American Society of Health-System Pharmacists, American Pharmaceutical Association,

American Association of Colleges of Pharmacy, and American College of Clinical Pharmacy. In most cases, reduced membership dues are available for individuals in educational and training programs. Membership in organizations (local, state, or national); familiarity with their publications; and attendance at their meetings, conferences, and conventions can help a student make valuable professional contacts and gain knowledge in current issues related to pharmacy and pharmacotherapy.

K. Ethical Guidelines

The mission of the College of Pharmacy is to provide 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 Supervising Professor or the Pharmacotherapy Division Graduate Adviser prior to undertaking the activity or employment.

L. 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/>.

M. 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 (Appendix G).** At his/her discretion, the Major Professor may require you to complete and submit a manuscript based on your thesis or dissertation before signing your graduation forms.

Appendix A

**SUPERVISING COMMITTEE
(Includes the Qualifying and Dissertation Committee's)**

Master of Science in Pharmacy (Pharmacotherapy)
Doctor of Philosophy in Pharmacy (Pharmacotherapy)
The University of Texas at Austin, Pharmacotherapy Division

Name: _____

Division: _____

Signature / Date

Major Professor: _____ / _____
(printed)

Co-Major Professor: _____ / _____
(if needed) (printed)

Supervising Committee

Signature / Date

(printed) / _____

(printed) / _____

(printed) / _____

(printed) / _____

Request to Amend Graduate Student Research Program

Master of Science in Pharmacy (Pharmacotherapy)
Doctor of Philosophy in Pharmacy (Pharmacotherapy)

The University of Texas at Austin, Pharmacotherapy Division

Student Name: _____ Date _____
(print)

Request to change:

Major Professor

Current Major Professor: _____
(print)

Proposed Major Professor: _____
(print)

Is the proposed Supervising Professor a member of the MSCI Graduate Faculty?

yes no

Supervising Committee

Current Supervising Committee: _____
(please print names)

Proposed Supervising Committee: _____
(please print names)

Research Project

A request to change an approved research project should be accompanied by a copy of the revised research proposal.

Appendix B. Sample Curriculum – Ph.D. (Pharmacotherapy) Program of Study

Summer Year 1

Course		Hrs
PHR S182W	Ethics in Science and Clinical Practice	1
PHR 285J	Advanced Pharmacotherapy Laboratory Research	2

Fall Year 1

Course		Hrs
PHR 196S	Seminar in Pharmacy	1
PHR 398T	Supervise Teaching	3
PHR 285W	Clinical Research Methods I	2
PHR 385L	Clinical Pharmacokinetics	3

Spring Year 1

Course		Hrs
PHR 196S	Seminar in Pharmacy	1
PHR 383Q	Stats in Translational Science	3
PHR 285W	Clinical Research Methods II	2
PHR 385M	Advanced Pharmacokinetics and Pharmacodynamics	3

Summer Year 2

Course		Hrs
PHR 385J	Advanced Pharmacotherapy Laboratory Research	3

Fall Year 2

Course		Hrs
PHR 196S	Seminar in Pharmacotherapy: Advanced Topics	1
PHR 381W	Molecular Biology in Translational Research	3
PHR 383W	Biopharmaceutical Analysis	3
PHR 184U	Biopharmaceutical Analysis Laboratory	1
PHR 185D	Responsible Conduct of Science	1

Spring Year 2

Course		Hrs
PHR 196S	Seminar in Pharmacotherapy: Advanced Topics	1
	Elective	2-3
PHR 85J	Advanced Pharmacotherapy Laboratory Research	2-3
PHR 381V	Communications Skills for Translational Scientist	3

Appendix C. Pharmacotherapy Division Coursework Checklist for Master's Degree

Graduate Level Didactic Courses (7 hrs)

Check if completed

- PHR S182W Ethics in Science and Clinical Practice
- PHR 398T Supervised Teaching in Pharmacy-Scientific Communication
- PHR 381W Molecular Biology in Translational Science
- Other Substitute (Please specify _____)

Substitute approved by Pharmacotherapy Graduate Adviser _____

Graduate Level Didactic Courses in Research Design and Statistics (7 hrs)

Check if completed

- PHR 285W Research Design Methods I
- PHR 285W Research Design Methods II
- PHR 383Q Stats in Translational Science
- Other Substitute (Please specify _____)

Substitute approved by Pharmacotherapy Graduate Adviser _____

Teaching Methodology and Scientific Communication (3 hrs)

Check if completed

- PHR 398T Supervised Teaching in Pharmacy-Scientific Communication

Required additional coursework (7 hours)

Check if completed

- PHR 196S Seminar in Pharmacy [Pharmacotherapy] (Fall Year 1)
- PHR 196S Seminar in Pharmacy [Pharmacotherapy] (Spring Year 1)
- PHR 196S Seminar in Pharmacotherapy: Advanced Topics (Fall Year 2)
- PHR 196S Seminar in Pharmacotherapy: Advanced Topics (Spring Year 2)
- PHR W390R Special Problems in Pharmacotherapy
- Other Substitute (please specify _____)

Substitute approved by Pharmacotherapy Graduate Adviser _____

Minor Area (6 hours)

Two (or more) courses (minimum of 6 credit hours) in the same discipline area.

Check if completed

- PHR S293U Pharmacotherapy Masters Mentorship Course
- PHR 293U Pharmacotherapy Masters Mentorship Course
- PHR 293U Pharmacotherapy Masters Mentorship Course
- PHR 290R Special Problems in _____ (Used when students are enrolled in UTHSCSA courses)
- PHR 390R Special Problems in _____ (Used when students are enrolled in UTHSCSA courses)
- PHR _____ Advanced Therapeutics in Specialty area, e.g., PHR 488U
- Other Substitute (please specify _____)
- Other Substitute (please specify _____)

Substitute approved by Pharmacotherapy Graduate Adviser _____

Thesis-PHR 698A and PHR 698B (PHR 698B must be taken in the graduation semester.)

Each course may be taken only once.

- PHR W698A Thesis (Summer or Fall 2nd Year) _____
- PHR 698B Thesis (graduating semester) _____

Electives (optional up to 4 hours) or additional courses specified by supervising professor

List courses taken as an elective or as additional coursework

Check if completed

- PHR 280R Special Problems in _____
- PHR 380R Special Problems in _____
- PHR _____

Submit one copy to the Administrative Office

Application for Master's Degree Candidacy
Pharmacotherapy Division
 (Revised 11/21/08)

TO THE CANDIDATE: Submit the following materials to the Graduate Studies Office in the UT-Austin College of Pharmacy (PHR 2.222, MC: A1900): Application for Master's Degree Candidacy form; Brief description of your thesis project (signed by you and your thesis supervisor(s), Checklist for the Pharmacy Therapy Division. With the assistance of the Graduate Adviser of the Pharmacotherapy Division, you should enter the courses, including PHR 698b (thesis) that must be taken in order to complete the master's degree requirements.

Student's name (last, first): _____

Student UT EID: _____

Student's e-mail address: _____

Previous degrees earned by candidacy applicant: _____

Degree Sought: Master of Science in Pharmacy

Date degree completion is expected (semester and year): _____

[You must be enrolled in PHR 698b (thesis) during the semester in which you expect to graduate]

Type the names of the individuals who will serve on your thesis committee. In addition to your Supervisor, a minimum of two and a maximum of three committee members should be listed. The supervisor of your thesis committee must be a member of the Graduate Studies Committee (GSC) for the UT-Austin College of Pharmacy but a non-GSC member may serve as a co-supervisor or as a reader. Please attach a short (2-3 pages) curriculum vita for any non-GSC members who will serve on your thesis committee.

Name of Supervisor (or co-supervisor if applicable)	Department Rank	GSC status
---	-----------------	------------

Name of co-supervisor (if applicable) or reader	Department Rank	GSC status
---	-----------------	------------

Name of reader	Department Rank	GSC status
----------------	-----------------	------------

Type the title and a brief (one page maximum) description of the thesis project.

Signature(s) of Supervisor(s)

Signature of Applicant

Appendix D. Sample Curriculum - MS (Pharmacotherapy) Program of Study

Year 1 – Summer

	Course	Coordinator	SCHs
PHR S293U	Pharmacotherapy Master's Mentorship	Resident Director	2
PHR S182W	Ethics in Science and Clinical Practice	Prof. Koeller	1

Year 1 – Fall

	Course	Coordinator	SCHs
PHR 293U	Pharmacotherapy Master's Mentorship	Resident Director	2
PHR 285W	Research Design Methods I (adv. Pharmacotherapy research)	Dr. Burgess	2
PHR 196S	Seminar in Pharmacy [Pharmacotherapy]	Dr. Wiederhold	1
PHR 398T	Supervised Teaching in Pharmacy	Dr. Kuhn	3
PHR 282J-A	Advanced pharmacotherapy Seminar	Dr. Ryan	1

Year 1 – Spring

	Course	Coordinator	SCHs
PHR 293U	Pharmacotherapy Master's Mentorship	Resident Director	2
PHR 196S	Seminar in Pharmacy [Pharmacotherapy]	Dr. Wiederhold	1
PHR 285W	Research Design Methods II (adv. pharmacotherapy research)	Dr. Burgess	2
PHR 383Q	Stats in Translational Science	Dr. Frei	3
PHR 282J-B	Advanced Pharmacotherapy Seminar	Dr. Ryan	1

Year 2 - Summer

	Course	Coordinator	SCHs
PHR 385J	Advanced Pharmacotherapy Lab Research	Graduate Adviser	3

Year 2 – Fall

	Course	Coordinator	SCHs
PHR 381W	Molecular Biology in Translational Research	Dr. Lam	3
PHR 196S	Seminar in Pharmacy [Pharmacotherapy]	Dr. Wiederhold	1
PHR 698A	Thesis	Graduate Adviser	3
PHR	Electives		2

Year 2 – Spring

	Course	Coordinator	SCHs
PHR 196S	Seminar in Pharmacy [Pharmacotherapy]	Dr. Wiederhold	1
PHR 698B	Thesis	Graduate Adviser	3
PHR	Electives		≥5

Elective Choices:

PHR 185J, 285J & 385J Advanced Pharmacotherapy Laboratory Research 1-3

PHR 185W, 285W & 385W Advanced Pharmacotherapy Research 1-3

PHR 190G, 290G, Advanced Pharmacotherapeutics of Human Diseases

390G & 490G and Illnesses (Topics) 1-4

PHR 290R/390R Special Problems Course (used for UTHSCSA supporting work) HSC Elective

Appendix E. PHR 293U Clinical Science Experiential Laboratory (Unique Number Specific to the MS Program)

These MS required courses are considered a core component of the MS Program and are distinguished from clinical residency experiential components by possessing the following attributes:

1. Increased level of faculty supervision of the graduate student in these experiential environments, with a syllabus for the course clearly delineating expected behavioral and educational outcomes.
2. Higher level of performance expectations including: a) increased depth and scope for topic and project-related discussions, and b) defined project or scholarly activity requirements to be completed for each laboratory
3. Performance will be evaluated on a letter a grade basis.
4. Additionally, dependent on the clinical science environment selected by the student, one of the following sets of evaluation requirements (or similar) will also apply:

If the laboratory is principally a clinical experiential component

1. An emphasis on evidence-based pharmaceutical care will result in substantial literature review, synthesis of therapeutic best practice guidelines, and integration with patient-specific characteristics to arrive at optimal drug therapy and outcomes.
2. The practice environment will be conducive to clinical training by a) requiring active participation in drug therapy decisions, b) providing the student with appropriate clinical privileges, and c) providing enough structure to maximize the student's opportunity for development of skills and acquisition of knowledge.
3. A final evaluation will include an assessment of the student's knowledge, skills, and competence to deliver pharmaceutical care.
4. The course will result in one of the following outcomes: a) the formal presentation of a case including literature evaluation and synthesis, critique of care, and recommendations for optimizing therapies, or at the discretion of the faculty either b) a written report (case series report, therapeutics review, or disease management paper) submitted for publication in a peer reviewed journal, or c) evidence of the design and execution of investigations/experiments resulting in pilot data for the student's Master's thesis work.

If the laboratory is principally a 'bench' experience

1. An emphasis on understanding the scientific basis and rationale for the experimental design, data collection, and observations obtained or analyzed during the rotation will result in the skills necessary to develop hypothesis and experimental designs, which address clinically relevant issues.
2. The laboratory experience will be conducive to the development of proficiency in performing quantitative methods, statistical approaches to managing observations and data, and arriving at evidence-based interpretations of the results.
3. A final evaluation will include an assessment of the student's knowledge, skills, and competence to interpret, quantify or analyze biological samples, databases, or other experimental observations

4. The course will result in one of the following outcomes: a) a formal presentation of research data, including literature evaluation and synthesis, hypotheses, statistical considerations, results, and a discussion of the results; or at the discretion of the faculty, either b) a written report delineating novel techniques of analysis or the results of an analysis (e.g., biological samples, clinical observations) submitted for publication in a peer reviewed journal; or c) evidence of the design and execution of investigations/experiments resulting in pilot data towards the student's Masters thesis work.

Requirements may vary depending on the specialty practice area selected. The Residency Learning System (RLS) developed by ASHP is the preferred assessment tool.

Appendix F

Instructions for Completion of the **Semi-annual Graduate Student Evaluation**

Master of Science in Pharmacy (Pharmacotherapy)
Doctor of Philosophy in Pharmacy (Pharmacotherapy)
The University of Texas at Austin, Pharmacotherapy Division

First, the student should complete Sections 1-3 of this document (the *MS Semi-annual Student Evaluation Form*) and forward an electronic copy to the Major Professor. The Major Professor should complete Section 4 after reading/approving all student entries in Sections 1-3; approval is documented by providing initials in the boxes at the beginning of each Section. The student and mentor should then meet to discuss the completed form that should be signed and dated by both the student and the mentor.



Second, the student is responsible for circulating the completed (signed) *Semi-Annual Graduate Student Evaluation Form* to all members of his/her Supervising Committee as well as for scheduling a meeting with this group. Optimally, this should be a meeting of the entire group in order to gain the benefit of a group discussion of student progress. However, under special circumstances, the student may meet individually with each member of their Supervising Committee; in this case, a memo should be provided by the Major Professor to describe the special circumstances which prevent a group meeting. Signatures of all members of the Student Supervising Committee should be obtained on the *Student Progress Report Form* of the Graduate Student Supervising Committee (the last page of this document).



Finally, the original (signed) *Student Progress Report Form* of the Graduate Student Supervising Committee together with the original (signed) *MS Semi-Annual Student Evaluation Form* should be submitted to the Pharmacotherapy Division Graduate Advisor. The Pharmacotherapy Faculty will then consider these documents.

SEMI-ANNUAL GRADUATE STUDENT EVALUATION

Master of Science in Pharmacy (Pharmacotherapy)
Doctor of Philosophy in Pharmacy (Pharmacotherapy)
The University of Texas at Austin, Pharmacotherapy Division

Name: _____

Review Date: _____

Major Professor: _____

Supervising Committee:

Goals of the semi-annual review process are to:

- A. Encourage a candid conversation between research mentor(s) and student.
- B. Create a document for review by the student's supervising committee and by the Pharmacotherapy Faculty.
- C. Provide the student with a critique of past six months performance and accomplishments.
- D. Establish concrete goals to clarify performance expectations.
- E. Identify research and career development options.

Sections 1-3 to be completed by the student and read/initialed by the mentor(s) in the boxes provided.
Sections 4-5 to be completed by the Major Professor. This form must be signed by student and mentor.



Section 1. Student Self-Assessment

Brief overview of your research project and major accomplishments in the past 6 months (~1/2 page):



Section 1 (cont.). Student Self-Assessment (use additional sheets as necessary)

	Yes	No
• Publications in past 6 months (number = _____) If yes, please list (with complete detail of authors, title, journal, pagination)	<input type="checkbox"/>	<input type="checkbox"/>
• Presentations at Local/National/International Meetings: If yes, please list (meeting, date, presentation title):	<input type="checkbox"/>	<input type="checkbox"/>
• Seminar Presentations (Local/National/International): If yes, please list (where, when, presentation title):	<input type="checkbox"/>	<input type="checkbox"/>
• Honors/Awards: If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Intra- or Extramural Funding If yes, please list: (include submitted and/or funded applications)	<input type="checkbox"/>	<input type="checkbox"/>
• Patents: If yes, please list:	<input type="checkbox"/>	<input type="checkbox"/>
• New areas of research or technical expertise acquired in past 6 months: If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Supervisory activity: If yes, please describe, <i>i.e.</i> , oversight of graduate/undergraduate or summer student (name, academic level, project title):	<input type="checkbox"/>	<input type="checkbox"/>
• Teaching If yes, please describe, <i>i.e.</i> , lectures or lab sessions, amount (department, course name, section title):	<input type="checkbox"/>	<input type="checkbox"/>
• Clinical activity (if applicable): If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Committee or other service activity (indicate if you held an office): If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Other professional activities not identified above: If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Other activities (community, etc.) with professional relevance: If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>
• Are there any obstacles to your research productivity? If yes, please describe:	<input type="checkbox"/>	<input type="checkbox"/>



Section 2. Student Research and Other Training Plans for the Coming 6 Months

- Research project and professional development goals (brief paragraph):
- Anticipated publications (indicate projected authors, titles, and journal):
- Anticipated meeting(s) or workshop(s) to be attended:
- Fellowship or other grant applications planned (indicate funding agency, type of award and application date):
- Other professional training (*e.g.*, course work):



Section 3. Student Career Goals

- Describe your long-term career goals?
- Describe what further research activity or other training is needed before it is appropriate to begin your job search?
- When will your job search be initiated?
- Please indicate if there are other issues that will affect your job search (*e.g.*, relocation constraints, an international trainee with an assured position in home country):

Section 4. Major Professor's Assessment of Student's Performance

Rate performance in the following areas:

	Expectations Not Achieved	Meets Expectations	Exceeds Expectations	Distinguished	Cannot Assess
Overall Knowledge of:					
Project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methods/lab techniques/equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Productivity/Quality of Work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data:					
Management (<i>e.g.</i> lab records)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interpretation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application of data/extension of findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teaching/Mentoring/Supervisory skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problem solving/Critical thinking skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovation/original ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Independence:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication:					
Oral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OVERALL ASSESSMENT

Would you recommend student for continuation?

Yes

No

What is the next level for this student (*e.g.*, job, additional training in this lab, additional training in another lab)?

What does the student need to do to reach the next level? What are plans to achieve this transition?

Additional comments (additional pages may be added as necessary):

Section 5. Signatures. Signed by both student and mentor to acknowledge this semi-annual evaluation.

Student _____

Date _____

Major Professor _____

Date _____

MANUSCRIPT APPROVAL FORM

SUPERVISING COMMITTEE

Master of Science in Pharmacy (Pharmacotherapy)
Doctor of Philosophy in Pharmacy (Pharmacotherapy)
The University of Texas at Austin, Pharmacotherapy Division

Student Name: _____
(printed)

Manuscript Title: _____

Authors (complete listing in order of appearance): _____

Journal: _____

Submission Date: _____

Signatures below affirm that the student manuscript has been reviewed/approved and, if published, will represent a significant contribution to the literature.

Major Professor: _____ / _____
(printed)

Supervising Committee _____ / _____
(printed)

_____ / _____
(printed)

_____ / _____
(printed)