



UNIVERSITY OF
SOUTH CAROLINA

College of Pharmacy

GRADUATE STUDENT HANDBOOK

PhD in Pharmaceutical Sciences

*Pharmaceutical Outcomes Sciences
Specialization*

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Preface

Welcome to the University of South Carolina College of Pharmacy! The college offers graduate programs leading to the MS and PhD degrees in Pharmaceutical Sciences. One of the options or “tracks” is in Pharmaceutical Outcomes Sciences within the Department of Clinical Pharmacy and Outcomes Sciences. The faculty sincerely hope that the pursuit of your advanced degree will be productive, rewarding, and enjoyable. The policies and procedures outlined in this handbook are intended to provide a concise compilation of departmental requirements, which complement and reflect the Graduate School regulations outlined in the Graduate Studies Bulletin of the University of South Carolina. All graduate students are encouraged to read and become familiar with the degree requirements in the Graduate Studies Bulletin (online <https://academicbulletins.sc.edu/graduate/pharmacy/pharmaceutical-sciences-phd/>) as well as with the policies outlined below. The graduate program in Pharmaceutical Outcomes Sciences is administered by the College of Pharmacy Graduate Director, Dr. Doug Pittman and Dr. Gene Reeder, coordinator for the Pharmaceutical Outcomes Sciences program. Questions concerning admission to the graduate program in Pharmaceutical Sciences, policies or procedures should be addressed to the Graduate Director at (803) 777-7715. Questions concerning admission, policies, or procedures should be addressed to the CPOS Graduate Program Coordinator. Questions relating to financial aid should be addressed to Mr. Xavier McKeon at (803) 777-0533 or xmckeon@mailbox.sc.edu.

Graduate Program Philosophy

The graduate program philosophy aligns with the College’s Vision Statement: “Our vision is to empower students, researchers, educators, and partners to transform healthcare through comprehensive pharmacy education, scholarly excellence, strategic collaborations, and entrepreneurial advancements, thereby enriching local, national, and global communities.”

The MS and PhD degree programs are structured to accommodate diverse research interests. The student, in consultation with his/her major advisor and advisory committee, will develop a program of study that reflects his/her research area of interest. Candidates for the MS or PhD degree are expected to conduct original research and to contribute to the literature in their area of expertise. Therefore, all MS and PhD candidates must submit a thesis or dissertation as appropriate, as well as manuscripts for publication. In general, each MS and PhD graduate student is expected to publish their findings in peer-reviewed journals during his/her tenure in the degree program.

Graduates of the Pharmaceutical Outcomes Sciences program are expected to be pharmaceutical scientists. Therefore, students are exposed to interdisciplinary training and education while seeking an advanced degree in pharmaceutical sciences. Candidates with an advanced degree(s) in pharmaceutical sciences will be prepared for a variety of career choices that include teaching and research at academic institutions, research in the pharmaceutical industry, pharmaceutical sales, regulatory governmental agencies, health care consulting, among others.

General University Academic Requirements and Procedures

Admission Regulations

The Graduate Admissions Committee in the Department of Clinical Pharmacy and Outcomes Sciences reviews all applicants to the Pharmaceutical Outcomes Sciences concentration of the MS and PhD programs. The following are the basic requirements:

1. A bachelor's degree or its equivalent from an accredited college or university, comparable in standard to that awarded by USC.
2. Satisfactory scores on the Graduate Record Examinations (GRE)
3. Intellectual promise, including evaluation of grade point averages (GPA) that indicates an ability to do acceptable graduate work
4. Strong personal qualifications, including good moral character

Candidates may apply for admission at any time during the year; review of completed applications begins by March 1st and the application deadline is April 15th for matriculation the following fall semester. Serious consideration will be given to applicants with a minimum overall grade point average of "B". The GRE verbal score should be a minimum of 294 for the combined verbal and quantitative scores and a minimum score of 4 on the analytical section. Applicants whose native language is not English are also required to submit a satisfactory score on an approved test of English language proficiency.

The Department of Clinical Pharmacy and Outcomes Sciences provides a welcoming environment for a wide range of diversity in its student population, including students with disabilities. Typically, qualified applicants will have diverse backgrounds with a Pharmacy degree or an undergraduate degree in a health-related discipline. Information regarding programs, policies, and admission processes can be obtained at www.gradschool.sc.edu/. The college also may award instructional and/or research assistantships to graduate students (see Financial Support section below for further details).

All students must be admitted to the University of South Carolina Graduate School by the Dean of the Graduate School, following the recommendation of the appropriate school or college. Admission is for the specific purpose stated by the Graduate School and the student must reapply to pursue further study or change the degree sought. Non-degree students must also be admitted to the Graduate School. Note that students are allowed to obtain a degree in accordance with the regulations in place at the time they are admitted to degree candidacy. A student may also utilize regulations established after admission to degree candidacy. However, all regulations chosen must be outlined in only one specific graduate bulletin.

INTERNATIONAL STUDENTS

In accordance with the graduate bulletin, students whose native language is not English must take a diagnostic test to assess their capabilities in English shortly after arrival on campus. English speaking capability will be assessed in a mandatory workshop held by the USC Graduate School in August or January of each year. Those students found to be deficient in writing, reading, or speaking English are provided opportunities for further study.

NEW STUDENT ORIENTATION

Upon arrival on campus, each student will meet with the Graduate Program Coordinator in Pharmaceutical Outcomes Sciences for the purpose of:

- Initial orientation and receipt of Graduate Student Handbook.
- Course advisement for registration. The Graduate Coordinator in CPOS will serve as advisor for class registration until the student's advisory committee is appointed, which typically occurs at the end of the first year of study.
- Assignment of teaching assistantship duties, if applicable.
- Assignment of graduate office location and building keys.

Course Regulations

COURSE LOADS

A student with a course load of nine or more credit hours during the fall and spring semesters is classified as full-time. Students with teaching or research assistantships are classified as full-time with 6 or more credit hours during the fall and spring semesters. All students are required to enroll for at least one credit hour during any semester in which thesis or dissertation progress is made or when resources of the University are utilized. With a few exceptions, students will register for 3 credit hours during the summer.

CLASS ATTENDANCE

Attendance and participation are expected for all classes. An excused absence may be granted by the course instructor provided a request is made prior to the requested date or acceptable documentation of the reason for an absence is provided to the instructor.

AUDITING A COURSE

A student must attend at least 75 percent of all classes in a course to receive audit credit. Under no circumstances will a student be allowed to repeat an audited course for credit.

DROPPING A COURSE

Graduate courses may normally be dropped with a non-penalty grade of "W" prior to the end of the sixth week of the regular semester. Courses dropped after six weeks of enrollment will result in a grade of "WF", which is considered as an "F" for purposes of grade point average and continuation in graduate school. In cases where there is documented justification of the need to drop a course after the six-week period, the graduate coordinator should be informed of the circumstances involved. Approval of the request will result in a grade of "W" in accordance with Graduate School procedures. Examples of previous approved requests include a death in the family or a documented serious illness. Graduate students in the Pharmaceutical Outcomes Sciences must inform the Graduate Program Coordinator prior to dropping any course in their program of study.

GRADING SYSTEM

The grading system utilized by the University of South Carolina is based on a 4-point system. The letter grades A, B, C, D, and F are used to designate excellent, good, fair, poor, and failing. A grade of D+ or lower cannot be applied to degree programs.

- I (Incomplete) An I is assigned when a student is prevented from completing some portion of work in a course. The instructor must submit a grade change form to the Office of the Registrar explaining the reasons for the incomplete and provision made to complete the course. The grade of 'I' is not utilized in computing a student's grade point average but will be permanently changed to an "F" after a 12-month period.
- NR (No record) An NR is used when a grade has not been submitted for a course. An NR must be appropriately replaced before the last week of the fall or spring semester immediately following the semester that the 'NR' was recorded or an "F" will be assigned.
- S or U (Satisfactory or Unsatisfactory) may only be utilized in accordance with approved "pass-fail grading." Courses completed with a grade of "S" may count as credits earned.
- T or U (Satisfactory or unsatisfactory progress) A T or U indicates progress toward completion of a thesis or dissertation. These grades are utilized for thesis or dissertation preparation courses designated as PHAR 799 (MS) or PHAR 899 (PhD). Although they count as credits earned, these grades are not utilized in computing the student's grade point average.

The following grading scale will be utilized for DDBS and CPOS PHAR graduate courses:

A	90–100.00
B+	85–89.99
B	80–84.99
C+	75–79.99
C	70–74.99
D+	65–69.99
D	60–64.99
F	< 59.99

Academic Standards

- Graduate courses taken for degree credit must be passed with a "C" or better.
- The student must maintain a grade point average of at least 3.0. Graduate degree-seeking students whose cumulative grade point average drops below 3.00 (B) will be placed on academic probation by the graduate school and are allowed one calendar year in which to raise the grade point average to at least 3.00. Students who do not reach a cumulative 3.00 grade point average during the probationary period will not be permitted to enroll for further graduate course work as a degree or non-degree student. Please see the full details of academic standards at the University of South Carolina Graduate school webpage: <https://academicbulletins.sc.edu/graduate/policies-regulations/graduate-academic-regulations/>.
- A student accumulating 12 credit hours with a grade of "C+" or below in graduate courses taken at the University will not be eligible for a graduate degree. This regulation will remain in effect for 6 years for the MS degree program and 8 years for the PhD degree program.

Grade Changes, Appeals and Petitions

A grade in a course may be changed only by the professor of record in the course, and then only within one year following the initial grade assignment. All appeals and petitions regarding other academic or curriculum matters must utilize the following procedures.

- The nature of the appeal and justification must be submitted in writing to the student's research advisor and graduate committee chairman.
- The graduate committee chairman will notify the graduate program director and call a meeting of the student's graduate committee.
- The student's graduate committee will issue an advisory opinion on the petition or appeal and submit it in writing to the graduate program director, who will render a decision.
- In the event of an unfavorable decision, the student may request that the graduate program director call a meeting of the graduate faculty which will rule on the appeal or petition and forward it in writing to the graduate director. In the case of further denial, additional appeals may be made to the Graduate School in accordance with the Graduate Bulletin.
- For consultation regarding any concerns or conflicts, students may confidentially discuss the situation with the Graduate Program Director or contact the Office of Student Advocacy for help resolving university-related problems and concerns. The Office of Student Advocacy may be contacted by Phone at 803-777-4872 (4USC) or by email at studentadvocacy@sc.edu. Students should seek help from the office when they:
 - Need help certifying an excused absence.
 - Don't know where to go or whom to ask about an issue.
 - Feel they have been treated unfairly by faculty or staff members.
 - Need help with how to navigate university policy or procedure.

Dismissal from Graduate Program

Graduate students in either the MS or the PhD programs will be subject to dismissal from the USC Graduate School and the Graduate Program in the USC College of Pharmacy for any of the following reasons:

- A cumulative G.P.A. below 3.0 beyond the probationary period of 1 year described above;
- Accumulation of 12 hours of 'C' or below in courses taken at the USC;
- Lack of satisfactory and continued progress towards completion of the degree, as determined by the student's graduate committee;
- Conviction of sexual harassment in the workplace; or
- A preponderance of evidence, confirmed by the thesis or dissertation committee, for research misconduct such as deliberate fabrication and falsification of research results or evidence of plagiarism.

Degree Requirements and Curricula

General Requirements

The typical length of time required to complete the MS degree is 2 years and 4 years for the PhD degree in Pharmaceutical Outcomes Sciences. Further degree-specific requirements are found in the PhD and MS degree requirements below. Course work *not part of a completed certificate or graduate degree* from the USC or another institution may be transferred for credit toward a doctoral degree.

All graduate students (MS and PhD), in consultation with their major advisor and advisory committee, must develop an individualized program of study within 24 months of matriculation. An average grade of “B” or better is required in all courses within a student’s program of study and grades below C are considered as failure. Students must enroll for 4 credit hours in the departmental seminar program (PHAR 711 A-D) and also participate in the seminar class every semester the student is enrolled in either degree program.

Doctor of Philosophy Degree

The Ph.D. in Pharmaceutical Sciences with a concentration in Pharmaceutical Outcomes Sciences prepares the graduate for numerous careers in academia, health care consulting, and the pharmaceutical industry. The program is designed to meet the specific needs and objectives of the student and provide a strong foundation of coursework and experiences in the areas of pharmaceutical outcomes research. In addition to the core coursework, students select an area of specialization to develop additional expertise in pharmacoeconomics, pharmacoepidemiology, or implementation science and health policy. The program has a strong emphasis on developing skills in quantitative and qualitative data analysis as well as large database management and analysis. The program uses a multidisciplinary approach in teaching and research activities.

Students who enter the Ph.D. program with a concentration in Pharmaceutical Outcomes Sciences with a post-baccalaureate degree (B.S. or Pharm.D.) must successfully complete *at least 60 hours* of graduate coursework. Students who enter the Ph.D. program with a master’s degree in a related field must successfully complete *at least 34 hours of graduate coursework*.

After enrolling in the program, the student must choose a research advisor by the end of the first year of enrollment. Admission to candidacy must occur by the end of the second year after passing a qualifying examination based on all courses completed during the first year of the program. A comprehensive written and oral examination must be completed by the end of the third year of the program. A written dissertation, along with an oral presentation and defense is required for the completion of the Ph.D. degree. Further degree requirements are listed below.

PhD Pharmaceutical Outcomes Sciences (60 Hours Minimum Post-Baccalaureate)

Required Courses

Pharmacy Core (22 credit hours):

- PHAR 711 A-D – Seminar in Pharmaceutical Outcomes Sciences (4 credit hours)
- PHAR 740 – Socioeconomics of Pharmacy Practice (3 credit hours)
- PHAR 741 – Pharmaceutical Outcomes Database Development (3 credit hours)
- PHAR 742 – Research Methods in Pharmaceutical Outcomes Sciences (3 credit hours)
- PHAR 748 – Principles of Pharmacoeconomics (3 credit hours)
- PHAR 743 – Grant Writing (2 credit hours)
- PHAR 749 – Introduction to Implementation Science (2 credit hours)
- PHAR 750 – Introduction to Pharmacoepidemiology (2 credit hours)

- PHAR 899 – Dissertation Preparation (12 credit hours)

Analytic Core (12 credit hours):

- BIOS 701 – Introduction to Biostatistics (or STAT 515) (3 credit hours)
- BIOS 757 – Intermediate Biostatistics (or STAT 516) (3 credit hours)
- BIOS 754 – Discrete Data Analysis (or STAT 518) (3 credit hours)
- EPID 701 – Concepts and Methods of Epidemiology (3 credit hours)

Minor/Cognate (Specialization) (14 Credit Hours Minimum):

Students in the Ph.D. in Pharmaceutical Outcomes Sciences concentration must also take at least 14 hours of elective graduate level courses in one of the following areas: pharmacoeconomics, pharmacoepidemiology, or implementation science and health policy. Elective courses will be identified and approved by the major advisor and Graduate Program Coordinator in consultation with the student.

Specialization Areas:

Pharmacoeconomics identifies, measures, and compares the costs (resources used) and consequences (clinical, economic, and humanistic outcomes) of the use of pharmaceutical products and services. Cost-consequence, cost-minimization, cost-effectiveness, cost-utility and quality of life methodologies are applied to answer questions about the value of therapy to the patient, payer, health care system and society. Decision makers can use these methods to evaluate and compare the total costs of treatment options and the outcomes associated with these options.

Pharmacoepidemiology is the study of the utilization and effects of drugs in large numbers of people. Pharmacoepidemiology focuses on patient outcomes from medical interventions and therapeutics by applying the methods of clinical epidemiology to understanding the determinants of beneficial and adverse drug effects.

Implementation Science and Health Policy is an emerging field focused on improving the uptake of evidence-based research and practice in real-world settings. Graduates will understand and apply a range of theories and methods to identify determinants, develop implementation strategies, and evaluate outcomes of evidence-based health-related programs, interventions, and policies to ensure effective, safe, equitable, and quality care.

PhD–Pharmaceutical Sciences (Post-Masters entry) (Minimum of 34 Hours)

Students who enter the PhD program in Pharmaceutical Outcomes Sciences with a Masters degree in a health-related field must successfully complete at least 34 hours of graduate course work. As part of the general requirements listed above, candidates for the PhD degree are required to complete four departmental seminar courses (PHAR 711A-D). A maximum of 4 hours credit can be earned for PHAR 711. Students must also take at least 14 hours of minor/cognate courses in one of the following areas: biostatistics, marketing, health policy, economics, or epidemiology.

All students are required to submit a dissertation based upon original research, meeting all requirements of The Graduate School prior to award of the degree.

Required Courses: (34 hours)

- PHAR 711 A-D – Seminar in Pharmaceutical Outcomes Sciences (4 credit hours)
- PHAR 740 – Socioeconomics of Pharmacy Practice (3 credit hours)
- PHAR 741 – Pharmaceutical Outcomes Database Development (3 credit hours)
- PHAR 742 – Research Methods in Pharmaceutical Outcomes Sciences (3 credit hours)
- PHAR 748 – Principles of Pharmacoeconomics (3 credit hours)
- PHAR 743 – Grant Writing (2 credit hours)
- PHAR 749 – Introduction to Implementation Science (2 credit hours)
- PHAR 750 – Introduction to Pharmacoepidemiology (2 credit hours)
- PHAR 899 – Dissertation Preparation (12 credit hours)

Additional coursework may be required as part of the program of study for post-MS entrants. and will be determined by the admissions committee after considering the skills, competencies, and experiences of the post-MS student.

Concurrent Pharm.D. and Ph.D. (60 Hours Minimum Post-Baccalaureate)

All students must successfully complete at least 60 hours of graduate coursework. In addition to the general requirements listed for the Ph.D. degree, students pursuing the Pharm.D. and Ph.D. concurrently will take elective courses that are approved for graduate credit and fulfill requirements for the Ph.D. program. Up to twelve (12) credit hours from the Pharm.D. curriculum may count toward both degrees, with the following stipulations.

- The student must have completed at least 90 hours of undergraduate coursework, have a minimum GPA of 3.40, and have the Accelerated Bachelor's/Graduate Study Plan Authorization (G-ABGSP) form approved and on file in the Graduate School.
- Grades of B or higher must be earned for any course to count for graduate credit.

- At least half of the electives must be numbered 700 or above. Courses numbered 500-699 are acceptable only if they have been approved for graduate credit.
- Graduate courses taught in units other than the College of Pharmacy must be approved by the graduate faculty of the Department of Pharmaceutical Outcomes Sciences as appropriate for a Ph.D. degree in pharmaceutical sciences.
- Registration for each course requires approval of the student's advisor, the chair of the student's department, the Graduate Program Director of the Ph.D. program, and the dean of the USC Graduate School.
- Form G-ABGSP must be processed for each graduate credit course at the time of registration to permit the registrar's office and the USC Graduate School to properly enroll and code the student for enrollment in a course for graduate credit.

A written dissertation based upon original research, along with an oral presentation and defense, is required for the completion of the Ph.D. degree.

Master of Science Degree

All students must successfully complete at least 30 hours of graduate course work. In addition to the general requirements listed above, candidates for the MS degree are required to complete two departmental seminar courses (PHAR 711 A-B). A maximum of 2 hours credit can be earned for PHAR 711. All students are required to submit a thesis based upon original research, meeting all requirements of The Graduate School prior to award of the degree. No more than six hours of credit for PHAR 799 will be allowed for thesis research and writing. Further degree requirements are listed below.

MS Degree Requirements (Pharmaceutical Outcomes Sciences – Minimum 30 credit hours)

- PHAR 711 A-B – Seminar in Pharmaceutical Outcomes Sciences (2 credit hours)
- PHAR 740 – Socioeconomics of Pharmacy Practice (3 credit hours)
- PHAR 742 – Research Methods in Pharmaceutical Outcomes Sciences (3 credit hours)
- PHAR 748 – Principles of Pharmacoeconomics (3 credit hours)
- ECON 720 – Managerial Economics (3 credit hours)
- PHAR 750 – Introduction to Pharmacoepidemiology (2 credit hours)
- PHAR 749 – Introduction to Implementation Science (2 credit hours)
- BIOS 701 - Concepts and Methods of Biostatistics (3 credit hours)
- BIOS 757 - Intermediate Biostatistics (3 credit hours)
- PHAR 799 – Thesis Preparation (6 credit hours)

PhD Degree Progression

Overview of PhD Degree Progression

Following is a brief outline of the steps required during the progression to the PhD and a time line for each step.

1. Completion of all required course work by the end of the degree program. The core curriculum should be completed by the end of the second year.
2. *Selection of a Research Advisor* should occur by the end of the second year. The student must notify the CPOS graduate program coordinator in writing of his/her selection using the 'Research Advisor Selection Form'.
3. *Selection of Graduate Committee*. A graduate committee must be selected by the end of the second year. The student must notify the graduate coordinator in writing of the committee's composition using the G-DCA 'Doctoral Committee Appointment Request' form available at the USC Graduate School forms library website: https://sc.edu/study/colleges_schools/graduate_school/graduate-studies/forms_library/index.php.
4. *The PhD Program of Study* must be completed by the end of the second year. Students must use Form DPOS 'Doctoral Degree Program'. The student must sign the Program of Study, as well as the Chairman of the Student's committee, and forward the document to the Director of Graduate Studies through the CPOS Graduate Program Coordinator.
5. *The Comprehensive Written/Oral Examination* must be taken no later than the end of the 3rd year in the student's degree program.
6. Dissertation completion.
7. Dissertation Seminar/Defense.

Admission to PhD Candidacy

All students must be admitted to Candidacy to pursue the PhD degree. Admission to candidacy occurs following successful completion of the Doctoral Qualifying Examination, which is typically administered after the first year of coursework. Students entering the PhD program with a Masters degree in a related field *may* be exempted from the qualifying exam upon approval of the CPOS Graduate Advisory Committee.

Comprehensive Written/Oral Examination:

After admission to candidacy and completion of all course work, a Comprehensive Written and Comprehensive Oral examination must be taken no later than the end of the 3rd year in the student's degree program.

Dissertation

A written Dissertation is required for completion of the PhD degree. The student is strongly encouraged to check the Graduate School and College of Pharmacy guidelines prior to starting their dissertation. Note that all theses and dissertations are officially submitted online to the

graduate school. Completed copies of the dissertation should be given to all graduate committee members at least 10 days prior to the defense of the dissertation.

(https://sc.edu/study/colleges_schools/graduate_school/graduate-studies/thesis_and_dissertation/submission-instructions/index.php)

Dissertation Seminar/Defense

A Dissertation Seminar and Defense must be completed within 8 years of the start of the PhD program. The dissertation seminar and defense of dissertation must be scheduled through the CPOS Graduate Program Coordinator, following consultation with all committee members. The Graduate Program Coordinator will be responsible for all publicity and/or notification of college faculty for the scheduled dissertation seminar and defense. The dissertation seminar will normally be 40-60 minutes in length with appropriate visual aids and will be open to the public. Following the dissertation seminar, the student will reconvene with his graduate committee for the defense of the dissertation. An affirmative vote of at least 75% of the graduate committee in attendance will constitute a passing performance pending any minor changes in the dissertation required by the committee.

Alternatively, in the event of failure to achieve an affirmative vote of at least 75% of the committee members in attendance, the committee may recommend at its discretion major revisions of the dissertation followed by a second and final defense of dissertation to be conducted within 1 year. Failure in a second defense of the dissertation will normally result in a Master of Science degree in Pharmaceutical Sciences being awarded. In any case, the chairman of the graduate committee will notify the Graduate Program Coordinator in writing, using the appropriate form, of the Committee's decision.

MS Degree Progression

The MS program must be completed within 6 years after enrollment in the degree program. Any course taken that is more than 6 years old cannot be used towards the completion of the degree.

Admission to MS Candidacy

All students must be admitted to Candidacy to pursue the MS degree.

MS Program of Study

A program of study must be submitted to the Graduate Program Coordinator by the end of the 2nd Semester of the student's degree program.

Comprehensive Written Examination

After admission to candidacy, a Comprehensive Written examination must be taken with 90 days of completion of all course work. The exam should consist of questions involving previous course work and will be administered by the chairman of the student's committee. The chairman will notify the Graduate Program Coordinator in writing of the examination ten working days prior to the examination and request questions from all previous instructors. The examination will be numerically graded based on 100 points. The chairman of the student's committee is normally responsible for determining the composition of the exam. Approximately 50% of the exam should come from the student's discipline. The chairman will contact each committee member to

determine the pass/fail status and forward this determination to the Graduate Program Coordinator using the 'Admission to Candidacy' form. The student will be notified in writing of successful completion or failure of the examination. In case of failure, one re-examination is allowed within 30-90 days following the initial notification of results.

Thesis

A written thesis is required for completion of the MS degree. The student is strongly encouraged to check the Graduate School and College of Pharmacy guidelines before he/she begins to write. Note that all theses are officially submitted online to the graduate school https://sc.edu/study/colleges_schools/graduate_school/graduate-studies/thesis_and_dissertation/submission-instructions/index.php. The student must follow the requirements of the Graduate School in terms of format, style, type of paper, number of copies required, etc. Completed copies of the thesis should be given to all graduate committee members at least 5 working days prior to the defense of the thesis.

Thesis Seminar/Defense

A Thesis Seminar and Defense must be completed within 6 years of admission to the MS program. The thesis seminar and thesis defense must be scheduled by the Graduate Program Coordinator, following consultation with the chairman of the graduate committee. The Graduate Program Coordinator will be responsible for all publicity and/or notification of college faculty for the scheduled thesis seminar and defense. The thesis seminar will normally be 40-50 minutes in length with appropriate visual aids and will be presented to all Clinical Pharmacy and Outcomes Sciences students, faculty, and scientific staff. Following the thesis seminar, the student will reconvene with his graduate committee for the defense of the thesis. An affirmative vote of at least 66% of the graduate committee in attendance will constitute a passing performance.

Alternatively, in the event of failure to achieve an affirmative vote of at least 66% of the committee members in attendance, the committee may recommend at its discretion:

- Major revisions of the thesis followed by a second and final defense of thesis to be conducted within 30-90 days
- A second and final defense of thesis to be conducted within 30-90 days

Failure in a second defense of the thesis will normally prevent the awarding of a Master of Science degree in Pharmaceutical Sciences.

Statement of Embargo

After graduation, theses/dissertations are stored and made available in two places: UMI/ProQuest's database, and USC's institutional repository, Scholar Commons. With the agreement of their major advisor, students can delay the dissemination of their dissertations with what is commonly referred to as an embargo. An embargo can be required in cases when there is unpublished data obtained with federal or private funding, to be included in the dissertation, as well as in cases concerning intellectual property or patent protections. Typical embargo options include 1 to 2 years but could be longer depending on the individual situation. During the electronic submission process, students will have to indicate their desired UMI/ProQuest embargo length, which will effectively prevent the full text of the thesis/dissertation from being available in the UMI/ProQuest database until the embargo period has elapsed. The length of the embargo must be discussed with the major advisor prior to the graduation date. To delay release of the thesis/dissertation in USC's institutional

repository, in agreement with their major advisors, students must indicate the requested embargo length on the required signature form and attach a justification memo or letter signed by both the major advisor and program graduate director.

Graduate Student Research Activity

Expectations

Every graduate student in the Pharmaceutical Outcomes Sciences program is expected to maintain a vigorous research program. This is demonstrated through the submission of abstracts and presentation of posters and talks at national and international meetings, as well as participation in the preparation of manuscripts submitted for publication in peer-reviewed journals.

Departmental Seminars

Philosophy and Objectives

There are two components of the departmental seminar program that contribute to the graduate education program. The first component consists of selected outside speakers. The objective of inviting outside speakers is to provide the students and faculty with an opportunity to interact with national and international experts on topics of interest in health economics and outcomes research. Graduate students are required to attend all departmental seminars.

The second component is attendance and participation in PHAR 711, which is offered during the fall and spring semesters. These seminars are presentations prepared by the graduate students and given to the graduate students and faculty. In this course, students gain valuable experience in preparing and delivering research seminars in front of an audience of colleagues. Please see the syllabus and course objectives for PHAR 711 for details. The collective goal is to provide valuable training in communicating science in an oral seminar format.

CPOS Graduate Student Expectations

The following are the general expectations of CPOS graduate students:

- Contribute to maintaining an intellectually stimulating environment, emotionally supportive, safe, and free of harassment.
- Be committed to graduate education and demonstrate effort in the classroom, research, and other academic settings.
- Respect for others and understanding that resources are shared.
- Be knowledgeable of the policies and requirements of the graduate program, the College of Pharmacy, and the University of South Carolina, and strive to meet these requirements, including meeting appropriate deadlines.
- Maintain a high level of professionalism, self-motivation, engagement, excellence, scholarly curiosity, and ethical standards.
- Continuously strive to be knowledgeable of past and current literature that influences the field of study.
- Balance duties and allocate professional time to be academically effective.
- Be responsive to the advice of and constructive criticism from faculty and the graduate committee.

- Discuss policies on academic work hours, sick leave, and vacation with the CPOS Graduate Program Coordinator.
- Complete all pertinent College and University orientations and training such as human subject training, new graduate student orientation, safety training, and Title IX training.
- Acknowledge primary responsibility to complete the degree and develop a career following degree completion. The graduate student should seek guidance from their research advisor, thesis/dissertation committee members, career counseling services available at USC and the USC Graduate School, writing support services, and other mentors.