POLICY MANUAL FOR THE ADMINISTRATION OF GRADUATE PROGRAMS

PURDUE UNIVERSITY

DEPARTMENT OF PHARMACY PRACTICE
College of Pharmacy

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CONTENTS

SECTION 1

<u>Philosophy of Graduate Studies in Pharmacy Practice at Purdue University</u>

A. The overall objectives of the <u>graduate</u> program in the College of Pharmacy at Purdue University are:

1. To provide an analytic, integrative, and expositional training program of such scope and quality that graduates will develop the background, confidence, and capacity to undertake creative and independent research in the pharmacy sciences.

2. To equip clinical and basic science graduates with a breadth of knowledge and skills to enable them to function in a teaching capacity in one or more disciplines of the pharmacy sciences.

3. To develop the ability to evaluate research endeavors critically and to communicate scientific thought effectively in verbal and written form.

B. The overall objectives of the <u>research</u> program in the College of Pharmacy at Purdue University are:

1. To advance knowledge in the pharmacy sciences about drugs, their development, manufacture, distribution, and appropriate use.

2. To apply basic drug-related knowledge to the health problems of mankind.

3. To develop projects and new approaches which demonstrate and evaluate costs, health care effectiveness, and systems effectiveness in providing pharmacy services as an integral component of overall patient care.

4. To develop improved approaches to the College's teaching and service programs.

C. Philosophy for graduate study in the Department of Pharmacy Practice

The philosophy characterizing the graduate program in Pharmacy Practice centers around a desire for excellence and a vision for leadership and managed strategic development. The faculty endeavor to maintain a research agenda that is integrally involved with maximizing the potential advancement of the profession. Research is frequently of a collaborative nature and its success, the result of interdisciplinary effort and shared experience. Students graduating with an advanced degree from the Pharmacy Practice Department are nurtured to embrace the concept of "reflective thinking." That is, they are encouraged to actively seek and undertake initiatives that are non-traditional and more risky, but that hold the greatest potential for the expansion of their professional role and the extension of their personal horizons. For

students who have the Ph.D. as their degree objective, Appendix A outlines the purpose of a doctoral research program. Specific details related to both the M.S. and Ph.D. programs are found in Section 3 of this manual.

D.   Philosophy of the graduate program and student development in the Department of Pharmacy Practice at Purdue University

1.   The education, research and service activities of the Department of Pharmacy Practice are directed toward advancing the practice of pharmacy in all environments and to prepare future leaders in pharmacy research, education and practice. The Department's graduate program, as an essential component of this mission, is directed toward the education and maturation of pharmacists in principles and techniques of research dealing with problems in the clinical, administrative, and educational aspects of pharmacy. These programs also encourage students to develop sound teaching techniques through appropriate coursework and supervised experience.

2.   Student growth is fostered through the various components of the graduate student's experiences including: coursework selected in the Plan of Study; graduate seminar; teaching assistantship responsibilities; introduction to research experiences; mentorship by the major professor; professional colleagueship and collaboration with faculty and graduate students; guidance and learning in the formal M.S. thesis and Ph.D. dissertation projects; and participation in professional meetings.

3.   Faculty responsibility to support a dynamic graduate program which aspires to achieve these stated purposes includes an optimal effort in teaching, mentorship, program administration, and generation of funds to support stipend and other program expenses which exceed Department direct support from the University.

4.   Student responsibility for personal growth toward the program goals should include a full-time work commitment within the program's overall components. In this context, a particular goal for each student should be enhancing individual capacity to pursue multiple responsibilities as a professional through planning and time management, priority setting, and regular self-evaluation in relation to goals.

5.   A general plan (Appendix B) reflects the Department's intent regarding evolution in graduate student appointments and student progression guidelines for optimal progress toward the program goals for each student. Unique circumstances may enable acceleration or may necessitate extension in this general timetable for individual students.

6.   Teaching assistantships represent University support for the Department's teaching and graduate program goals.

a.   TA assignments provide financial support for the graduate student.

b.   TA assignments provide essential administrative and instructional support to our faculty and undergraduate students. As such, responsible and timely completion of activities assigned by supervising faculty are essential.

c.   TA assignments help graduate students develop an appreciation for the importance of those particular courses in the College's educational plan.

d.   TA assignments are designed to allow the graduate student some creative/development opportunities within the course, while recognizing that there are certain routine aspects of each assignment.

e.   TA assignments should encourage an openness that allows for the exchange of ideas between the TA and the supervising faculty regarding course content and structure.

7.   Fellowships or research assistantships (RA), acquired through competitive application by graduate students, faculty or through extramural funds generated by faculty research and service effort provide stipend support for graduate student appointments exceeding allocated TA appointments. Summer RA appointments and the intent to provide each second-year student and beyond with partial support as an RA are intended to enable strong student progress in thesis or dissertation research as well as in broadening research background and perspectives through assistance with specific faculty research projects. Given the current size of the graduate program student body, the financial demands on the Department to continue this strategy of student appointments necessitates students putting forth their best efforts to effectively use the opportunities.

E.   Summary of the graduate programs offered through the Department of Pharmacy Practice at Purdue University

Graduate programs are offered leading to the M.S. and Ph.D. degrees with majors in Clinical Pharmaceutical Sciences and Health Services, Outcomes, and Policy. These programs are directed toward the education and maturation of pharmacists in principles and techniques of research dealing with problems in the clinical, administrative, and educational aspects of Pharmacy. These programs also encourage students to develop sound teaching techniques through appropriate coursework and supervised experience.

Faculty and Graduate Student Research Thrust Areas: Research directed toward advancing the practice is carried out in five related areas.

1.   Practitioner and practice development

These projects address non-traditional postgraduate education programs, career development studies, educational methodologies, practice standards, and models of service delivery.

2. Enhancement of pharmacy as a profession

These projects examine demands and compensation for distributive and clinical pharmacy services. They further address issues in health care economics, health insurance design, and health care organization.

3. Investigational drug studies

These projects assess safety and effectiveness of drugs for uninvestigated indications in animal models and/or human trials.

4. Safety and effectiveness evaluation for marketed drug products

These projects focus on post-marketing surveillance, adverse drug reaction, and drug utilization review methodologies.

5. Marketing strategies and consumer use of drug products

These projects analyze public policy and marketing of pharmaceuticals as well as medication and compliance behavior.

Department Faculty: The Department includes 30 professorial faculty and professional staff and approximately 130 affiliate clinical faculty with advanced training and expertise in clinical pharmaceutical sciences, Health Services, Outcomes, and Policy, and educational program development and evaluation.

SECTION 2

Admission-Related Policies

Admission to the graduate program in the Department of Pharmacy Practice is limited to recent graduates demonstrating a high level of academic performance during their undergraduate education and to pharmacists demonstrating a high level of performance in professional practice.

A Bachelor of Science in Pharmacy or Doctor of Pharmacy is normally the minimum degree requirement for admission to the program. Applicants with a non-pharmacy background should demonstrate career goals consistent with study in the Department's areas of research interest. Applicants must take the Graduate Record Exam (GRE). International students must submit Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores for Purdue University Graduate School admission. A minimum score of 77 with minimum scores per section Speaking 18; Writing 18; Listening 14; and reading 19 on the computer-based TOEFL test is required for admission. For the IELTS, academic version only, applicants must have an overall band scored of 6.5. Whenever possible, an interview is recommended to assess the student's communicative ability, commitment, and motivation for graduate work. Furthermore, within the formal application procedure, the prospective student will be asked to submit a short essay ("statement of purpose") describing his or her career goals and reasons for pursuing graduate study at Purdue University.

Applications will be processed only after all required materials have been received by the Department of Pharmacy Practice Graduate Affairs Committee. Students are normally admitted for study beginning with the fall academic semester. Occasionally a student will be considered for admission beginning with the spring semester if space is available in the program. Applications must be received by November 1 to receive full consideration for fellowship opportunities. Since applications received after March 1 will have a lower priority in consideration for admission, materials should be submitted as early as possible. Applications from international students received after March 1 will not be reviewed for fall semester admission. The Department Graduate Affairs Committee normally meets to make admission decisions in mid-January and in mid-March. Students may check on the status of their applications by contacting the Department Graduate Administrative Assistant Mindy Schultz (Ph: 765-494-1468 or e-mail: mschult@purdue.edu) or the Graduate Chair, Brian R. Overholser (Ph: 317-278-4001 or e-mail: boverhol@purdue.edu). Online Applications may be made at: https://www.purdue.edu/gradschool/admissions/how/index.html.

Policy on Written English

"The Department of Pharmacy Practice carefully reviews graduate applicants to assure that students admitted into graduate study have the oral and written English skills necessary to be successful in the program. However, should deficiencies be identified in a student admitted to the program, it is the responsibility of the student to take steps necessary to assure that identified deficiencies are corrected. These steps may range from requiring remedial course work in written or oral English to careful monitoring and the provision of specific feedback related to oral presentations or written assignments that are a part of the student's graduate program. The student will be advised of the appropriate steps to be taken by his/her major professor. Progress by the student in resolving deficiencies shall be reviewed as a part of the normal annual student progress review meeting."

SECTION 3

Performance-Related Policies, Governing Body, and Program Components

A.   Standards for Graduate Student Performance

A student's major professor and/or graduate committee are charged with determining at all times whether a student is making reasonable progress toward his/her degree objective. This progress is reviewed annually through the filing of a progress report (see Section 3.C.2). The faculty recognizes that a variety of factors should be used in monitoring each graduate student's progress in the program. These considerations include such factors as grade point average, the level and difficulty of courses taken, attendance and participation in departmental seminars, performance in library and laboratory research activities, conscientious performance of teaching duties, and general attitude. However, grade point average and satisfactory research performance are the key indicators of success in the program.

1.   Grade Point Average

At Purdue University the GPA is based on a possible 4.0 which represents an "A". With this as a basis, the Department of Pharmacy Practice has established the following policies to provide guidance to the student:

a.   Any graduate student who fails to obtain a "B" (3.0) average during any semester of academic work will be placed on departmental probation. The chairperson of the Department Graduate Affairs Committee will be charged with reviewing graduate student academic performance at the end of each semester. Graduate students who are identified as being in academic jeopardy will be brought to the attention of the respective student's major professor by the chairperson and a list of these students will be submitted formally to the Head of the Department. The Head of the Department shall then notify each of these graduate students by letter indicating that the student has been placed on academic probation. This student must then obtain at least a "B" (3.0) semester average, while maintaining the assigned course load, at the conclusion of the subsequent semester. In addition, in the event that the student's cumulative GPA has fallen below 3.0, one additional semester will be given to reestablish the grade point to this minimum level.

b.   Any graduate student who fails to satisfy the above conditions at the end of this probationary semester will automatically lose all financial support. Continuation in the graduation program will be determined by the Department Head, advisor, and/or the Department Graduate Affairs Committee.

c. A minimal cumulative GPA of 3.0 is required for certification of either a M.S. degree or a Ph.D. degree.

d. Graduate students receiving the M.S. degree offered through the Department or another school must have a minimal GPA of 3.1 in their previous graduate work to qualify for the Ph.D. program offered through the Department.

e. Requests for exceptions to the above policies must be initiated by the student in the form of a written petition and must be approved by the Department Head, following review by the Department Graduate Student Advisory Committee.

2. Research Performance

A student who is not making satisfactory research progress will be given a "U" in research. Any student receiving a "U" in research will be placed on departmental probation. A student must then convene a graduate advisory committee meeting in the semester following receipt of the "U" grade for review of the probationary status. A student who fails to remove the probationary status by exhibiting satisfactory research performance in the subsequent semester may be dismissed from the program following a review of the student's record by the Department Graduate Affairs Committee. Probationary status in research may be considered as grounds for withholding of financial support.

3. Time to Degree

College of Pharmacy rules state that any student who fails to complete all requirements for the Ph.D. in eight (8) calendar years is dismissed from the program unless a written appeal is made to the Associate Dean for Graduate Programs. Similarly a student may not take longer than six (6) calendar years to complete the Master's degree.

B. Graduate Affairs Committee

The Graduate Affairs Committee was established in the Pharmacy Practice Department in 1983 to provide guidance to the continuing development and administration of the Clinical Pharmaceutical Sciences and Health Services, Outcomes, and Policy graduate programs within the Department. Dr. Brian R. Oveholser is the chairman of this committee. Matters considered by the committee include:

1. Philosophy concerning the contribution which each of the following activities should play in the development of graduate students toward meeting the graduate program objectives (i.e., those stated in the Department Goals and Objectives).

   a. Graduate teaching assistant assignments
   b. Fall and Spring Semester Department Seminar
   c. Preliminary examinations

d.   Development of an original research proposal
    e.   Thesis and dissertation project standards
    f.   Oral defense of the thesis project and dissertation
    g.   Participation in ongoing project activities within the department
    h.   Participation with a professor in project funds acquisition
    i.   Presentation of papers at professional or scientific meetings
    j.   Preparation and review of manuscripts to be submitted for
         professional/scientific journal publications

2.   Review of current academic standards for graduate student performance and
     development of procedures to administer such standards effectively.

3.   Maintain guidelines for providing financial assistance to graduate students (e.g.,
     TA, fellowship, summer research appointment, thesis research support, assistance
     to attend a professional/scientific meeting).

4.   Coordinate annual intradepartmental process for developing Department
     nomination for the A. and A. Kienly Award for excellence in teaching and the
     Jenkins/Knevel Award for excellence in research.

5.   Development of programs and strategies for the recruitment and retention of
     graduate students.

C.   Program Components

1.   ADVISORY COMMITTEE

     The graduate student will be encouraged to work independently. However, the
     Department recognizes that the most significant determination of quality in a
     graduate program is the interaction of the faculty and its students. Each student
     will select a major professor to direct the student's research and act as the
     chairperson of his/her advisory committee. Selection of a major professor
     should take place, at the latest, during the second semester of the student's
     graduate program.

     The function of the advisory committee will be to assist the student in the
     development of a plan of study and to offer advice/guidance during the period of
     graduate work. The advisory committee, as agreed upon by the major professor
     and the student, will consist of a minimum of three graduate faculty members
     representative of clinical pharmaceutical sciences/Health Services, Outcomes,
     and Policy for the Masters Thesis option. For the Doctoral dissertation, a
     minimum of four graduate faculty members will be required, one of these
     members being from a collaborative field of study outside of the Department of
     Pharmacy Practice. The Department of Pharmacy Practice Graduate Affairs
     Committee will be responsible for overseeing the administration of the program

and the progress of its graduate students. The academic and the research progress of each student will be reviewed by this committee annually.

In general, the advisory committee is used to administer the written and the oral comprehensive examinations and to administer the thesis and dissertation defense.

2.   PROGRESS REPORTS

It is crucial that periodic assessment be made by/of the Department's graduate students to assure that optimal progress is being made in their individual plans of study and that their activities are consistent with the mission and philosophies of the Department. Annually, each graduate student in the Department shall submit to his/her major professor/advisor, a typed report outlining the items noted in Appendix C. Appendix D identifies graduate student progress evaluation factors which students may use in their self-evaluation and which students and their major professor/advisor may use for future planning. After signature of receipt on the report by the major professor/advisor a copy of this report will be filed with the graduate affairs chairman and the department head. The report will be reviewed by the major professor/advisor and a meeting date will be set for the student and the faculty member to review the report contents and the future plans. In addition to this joint student-major professor/advisor review and planning, each student will meet with his/her major professor or advisor, the graduate affairs committee chairman, on a periodic basis as determined by the graduate affairs committee to discuss the student's progress and plans.

3.   PLAN OF STUDY/COURSEWORK

The Plan of Study outlines the coursework to be completed by a graduate student pursuing either a M.S. or Ph.D. degree. Coursework requirements for degrees in Health Services, Outcomes, and Policy and Pharmacy Practice/Clinical Pharmaceutical Sciences are found in Appendices E and F. Responsibility for the preparation and timely submission of the plan of study is shared equally by the student and the major professor. The Policies and Regulations Manual of the College provides specific details related to the Plan of Study.

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4.   REGISTRATION REQUIREMENTS

The total number of hours of academic credit used to satisfy residency requirements consists of all course credit hours that appear on the plan of study, other graduate course credit hours with grades of C or better that appear on the Purdue transcript, and research hours that appear on the Purdue transcript.

a.   Master's degree:

(1)   At least one-half of the total credit hours used to satisfy degree requirements must be earned while registered at Purdue University.

(2)   More than 50 percent of the Purdue credits must be earned through the campus where the degree is conferred.

(3)   At least 30 total credit hours are required.

b.   Ph.D. Degree:

(1)   At least one-third of the total credit hours used to satisfy degree requirements must be earned while registered for doctoral study at Purdue University.

(2)   At least 90 credit hours are required

(3)   Courses from a Masters or professional doctoral degree program, if relevant to the Ph.D., may be listed on the Ph.D. plan of study. A maximum of 30 hours from a masters or professional doctoral degree may be included at the on the plan of study as the discretion of the student's graduate program.

5.   GRADUATE SEMINAR

Students will register for credit in graduate seminar (i.e., CLPH 696 or HSOP 696) each semester they are enrolled in the program. Graduate seminar is an important program component which is designed to allow for student-faculty interchange using a variety of meeting formats. The goal of this seminar is to provide participants with knowledge and feedback regarding their ongoing scholarly efforts in discovery, teaching and clinical practice. Presenters include graduate students, faculty (tenured, tenure track, and clinical track), and visiting speakers from other departments or universities, the pharmaceutical industry, government, health services organizations, and professional associations. Emphasis is placed on presenting original, in-progress or completed scholarship and providing participants the opportunity to receive feedback on their ongoing scholarship in a collegial environment. This forum is intended to be an open platform to present and receive feedback to improve scholarly work.

Learning objectives:
1. Communicate scholarly work to peers and colleagues
2. Debate the pros and cons of scientific methods
3. Appraise scholarly endeavors for strengths and weaknesses

When the semester format provides students with the opportunity to make an oral presentation, those presentations will be evaluated by students and faculty attending the seminars on an evaluation form designed for that purpose. Completed evaluation forms will be provided to the student's major professor/advisor for sharing with the student.

6.   PROGRAM-RELATED EXAMINATIONS

The Department of Pharmacy Practice has set the following examination guidelines for the Master of Science and the Doctor of Philosophy programs. For the Master of Science program an oral examination covering the thesis is required of the student. For the Doctor of Philosophy program one preliminary written examination is required. With successful completion of the written examination an oral examination is then required. These examinations may be taken by the student when a majority of the plan of study has been completed. Further, these examinations must precede presentation of the dissertation defense at least by two semesters. Both the M.S. and the Ph.D. final examination consists of an open presentation of the student's research study (open to all students and faculty), followed by a closed defense in the presence of the student's examining committee. Preliminary examination time periods are scheduled at the discretion of the Department of Pharmacy Practice and are limited to no more than two per year. These examinations may be scheduled during the fall, spring, and/or summer semesters.

7.   APPROVAL OF RESEARCH PROBLEM

After the student has selected a thesis (M.S.) or dissertation (Ph.D.) topic he/she is required to prepare and submit a typewritten proposal to his/her advisory committee for approval. The proposal must contain the problem to be studied, specific objectives, a critical review of the pertinent literature, research procedures to be used, proposed method of data analysis, estimated cost, and a tentative timetable. Final approval of the Ph.D. proposal cannot precede successful completion of the preliminary examinations.

8.   THESES AND DISSERTATIONS

Regulations governing the 1) paper, 2) typeface and quality, 3) spacing, 4) margins, 5) page numbering, 6) title page, and 7) abstract are found in the document "A Manual for the Preparation of Graduate Theses." The Department has adopted, as a guide to all other style elements the following: Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. 7th edition.

Chicago: University of Chicago Press, 2003. Theses and dissertations in their final form <u>must</u> be given to all committee members a minimum of one week prior to defense. In accordance with University policy, the Graduate School must be notified at least two weeks in advance of the scheduled defense date. The major professor is responsible for this duty. Completion of thesis or dissertation <u>in absentia</u> is strongly discouraged and will not be approved except in extraordinary cases of hardship and/or where the research dictates the student's presence elsewhere. Purdue Graduate Form 72-9 (Request for Research in Absentia) specifies requirements to be met for approval.

SECTION 4

Program-Related Policies

Each student is supplied with a mailbox and adequate working space. During regular office hours, the student is expected to be working in the Department area except when involved in coursework, library activities, fieldwork, or functioning as a teaching assistant. Every effort should be made by the graduate student to let the major professor know of his/her whereabouts in the event of an emergency.

2.   TEACHING ASSISTANTSHIPS

-    Every graduate student shall complete a minimum of ten (10) hours per week for two semesters, or the equivalent, as a teaching assistant during matriculation toward the Ph.D. degree.

-    The two (2) semester requirement may be waived in part or entirely if it is deemed the student has had equivalent instructional experience prior to entry of the graduate program. This determination will be made by the Department's Graduate Affairs Committee.

-    The stipend for teaching assistantships will be determined at the start of each academic year by the Department Head working within the limits of the departmental personnel budget. Assistant assignments are the discretion of the Department Head operating under advisement of the Graduate Affairs Committee and the professor-in-charge of the department course offerings.

-    Graduate students who have fellowships and wish to seek additional support from departmental funds as teaching or research assistants shall be limited not to exceed the monetary values which apply for students having the same level of seniority and responsibility.

-    Every TA will be evaluated each semester by his/her supervising instructor using a standardized rating form which includes space for comments and a short narrative. This evaluation will be shared with the student and his/her major professor or current advisor. In addition, this evaluation will be shared with the graduate affairs committee chairman and department head and used in conjunction with progress meetings discussed in Section 3.2.

3.   TRAVEL/VACATION POLICIES

Graduate students must submit an Absence from Campus Duty Form (Form G) when traveling away from campus for University-related AND non-university related matters. The policy and a sample of the form appropriately completed are described in the Policies and Regulations Manual for Graduate Students published by the Dean's Office of the College.

Academic-Year Staff: Graduate staff employed on an academic-year basis are in vacation status with pay during the periods of the academic year when classes are not in session. The seven-calendar-day period prior to the first day of classes each semester and the periods between the end of classes and the final date for submitting grade reports are not considered vacation. Official University holidays falling within the vacation periods are treated as vacation except when classes are in session.

4.   ATTENDANCE AT NATIONAL PROFESSIONAL MEETINGS

Attendance at national professional meetings is encouraged by the Department and limited financial support is available to each graduate student to attend one meeting per year. The following guideline, therefore, was adopted by the Department's Graduate Affairs Committee to assist graduate students to attend a professional meeting each year:

-    Basic graduate student allocation to attend a professional meeting (plus transportation in Purdue vehicle if being used for faculty travel to that meeting): a maximum of $400.00. Students making a presentation at a meeting are eligible for an additional allocation of $50.00 for a total of $450.

5.   EXTERNAL SUBMISSIONS

To ensure that all external submissions reflect Department standards and do not violate confidentiality requirements or other contractual obligations, all graduate presentations, abstracts, manuscripts or other submissions for external presentation or publication must have prior approval of the advisor/major professor of each student authoring of co-authoring such work. Materials must be submitted for review in adequate time (normally at least two weeks) prior to any submission deadlines.

6.   OUTSIDE EMPLOYMENT

The graduate program in Pharmacy Practice is a multifaceted experience with objectives and learning opportunities requiring the full attention of the student. Outside employment, in addition to a TA/RA/fellowship/dorm counselor appointment, is a tempting distraction and may offer an occasional advantage if the environment is one that may contribute to the student's perspective of practice. Frequently, however,

students despite initial intentions to balance the full-time graduate program responsibilities with outside work activity, students usually find that the commitments exceed their personal limitations and find themselves "burning the candle at both ends." This situation translates into an inability to meet all facets of program objectives in a timely manner. Avoidable delays of this nature are costly to the student and to the Department.

It should be clear that outside work is not an acceptable excuse for not completing assignments, research project components, and/or plans of study in a timely and high quality manner. The long-term consequences of additional part-time employment must be carefully considered by each individual student.

7.   COMPUTER RESOURCES

      a.   Department Philosophy

Knowledge of and skill in use of computer applications in pharmacy practice and research are essential during the graduate program and for career success. All students are expected to develop familiarity with the range of software available for use and skill in applying computer applications to analysis and presentation of data. Students are encouraged to become familiar with and utilize e-mail to facilitate communication among themselves and with faculty.

Student progress in acquiring computer skills will be assessed as part of the regular progress report and review process. Students are expected to become proficient in at least one-word processing system to the extent that they are capable of preparing manuscripts on the system during their first semester in the program. By the second semester of their program, students should have become familiar with university computer resources and be able to use at least one statistical analysis package.

Just as development of any skill requires hands-on experience, so do computer skills. Graduate programs operate on the premise that the student is a motivated self-learner who will take initiative in acquiring new knowledge. Therefore, the student bears ultimate responsibility for acquiring facility in use of computer hardware and software applications as applied to pharmacy practice and research. Each student's major professor and advisory committee will provide direction on the specific skills that are necessary for success in the student's chosen area of specialization but the student is responsible for developing those skills through utilization of the many resources available throughout the University.

Access to a variety of primary computer resources is provided at the Department, College, and University levels. Department computer resources are intended primarily to support word processing and light graphics or

database management applications. The College maintains a computer laboratory that provides resources for more intensive applications. Additional personal computers for student use are also located in a variety of laboratories maintained by the University Computer Center. The Purdue University Computer Center also maintains extensive mainframe computer resources that are available for research.

b.   Learning Resources

The Purdue University Computer Center offers a variety of short courses that are scheduled for 2-hour periods over one or more days. These courses are generally offered during the evenings and provide a good means by which students can gain an introduction to use of personal computers or mainframe computer resources. The computer center also provides a walk-in consulting service that assists students in solving computer operation systems problems or problems with any of a wide variety of software packages supported on the mainframe. Students wishing to develop depth or expertise in certain computer skills may enroll in for-credit courses which provide an opportunity for skill development in a classroom setting that emphasizes practice and application of computer skills. In some cases, such courses may be included on a student's plan of study.

c.   Use of Departmental Computers

Personal computers in the Departmental Research are provided for the convenience of students enrolled in the graduate program. These computers are available for use 24 hours a day seven days a week. They may be used for any course or research-related activities. They are not for use by students not enrolled in the Department of Pharmacy Practice Graduate Program or activities unrelated to students' graduate program.

Graduate students are responsible for providing their own disks and other incidental supplies consumed in computer use. The Department is responsible for maintenance and repair of the computer equipment. All problems with computer equipment should be reported promptly to Mindy Schultz, Administrative Assistant, so that repairs can be effected.

The Department honors and enforces all copyright and use restrictions on software. Students should not attempt to copy or allow others to copy any software from or to Departmental computers. To control the possibility of computer virus contamination and to prevent copyright infringements, students should not download or copy any software to Departmental computers without prior approval the chair of the graduate committee.

SECTION 5

Office-Related Policies

1.   TYPING AND CLERICAL ASSISTANCE

Department support staff may assist graduate students with typing and/or copying of material associated with the following: official University and Department forms; a course in which the student is a teaching assistant; a departmental seminar presentation by the student; a survey instrument; a manuscript for publication or presentation at a professional meeting. The request of such services should be made to the support person through the major professor of the student or the course instructor. In general, typing of reports and other papers associated with a student's coursework or thesis project is the student's responsibility.

Similarly, copying of articles or other materials for use in a student's coursework or thesis/dissertation project is the student's responsibility. Exceptions to this policy can be made when deemed appropriate by the major professor.

2.   COMPUTER (WORD PROCESSOR) USE:

Graduate students are not permitted to use any support staff typewriters, computers, or printers. Computers and printers are provided by the Department for graduate student use in RHPH 552A, RHPH 515 and at the Eskenazi office in Indianapolis. Before using this equipment, students are asked to request instruction on the proper use of the equipment through their major professor/academic advisor.

3.   RESPONSIBILITY FOR COMPUTER SUPPLIES

Graduate students are responsible for providing their own storage media. Computer paper and toner cartridges associated with the use of the computer equipment are provided by the Department for graduate student use.   The Department is responsible for the maintenance and repair of the computer equipment; therefore, it is requested that any problems with equipment be promptly reported to Mindy Schultz.

4.   USE OF DEPARTMENT STATIONERY/OFFICE SUPPLIES

The use of Department/College stationery for correspondence is reserved for official University business where the contents of the communication represent departmental-related activities. Graduate students must seek permission of the major professor/academic advisor before using letterhead stationery. Instances where the official stationery is permissible to use, after advisor approval, includes but is not limited to, correspondence concerning research proposal, a presented paper or manuscript, or when acting on behalf of a course instructor when serving as a teaching assistant. Departmental stationery should not be used for requesting information and/or expressing interest in employment opportunities or for any

other personal matter. If questions arise concerning the policy, the advice of the major professor or the department administrators should be sought.

5.   TELEPHONE USE/MESSAGES

The Department telephones are for official use and long-distance calls must be approved by a member of the faculty.

Messages for graduate students will be taken by the department support staff for matters related to University activities and in the event of emergencies. The support person will reduce to writing the message and leave it in the graduate student's mailbox as appropriate.

At the support person's discretion or in the event of an emergency, the support person may seek out the graduate student and/or alert the major professor of the situation.

*   The major professor has the responsibility to inform his/her students of Department policies and to monitor adherence to the policies. This includes but is not limited to, policy regarding support staff assistance, office equipment use and office supplies.

*   The major professor is also responsible for assuring that his/her graduate students are trained in the proper use of any office equipment authorized for use.

6.   DEPARTMENT SPACE UTILIZATION GUIDELINES

The primary purpose of Department research and graduate space is to support the research and teaching of faculty and graduate students in the Department of Pharmacy Practice. Achieving this goal requires that guidelines on the utilization of space in this area are adopted and enforced. Following are guidelines related to the use of Department space.

a.   Department Graduate and research space is restricted for use by faculty, graduate students and employees in the Department of Pharmacy Practice for activities that are directly related to achieving the research and teaching goals of the Department. Persons not engaged in these activities should not be in the room without the authorization of the space coordinator, Dr. Brian Overholser or Mindy Schultz.

b.   Doors to Department offices and other space should be kept locked when the space is not in use.

c.   A limited amount of overhead cabinet storage space may be designated for use by graduate students in the Department who are actively engaged in ongoing research. This space is intended for the temporary storage of materials that are needed for the direct support of ongoing research. It is NOT intended to be used for permanent storage, or to supplement the student's assigned office space.

d.   Graduate students should remove all personal belongings, and all other materials that are not stored in their assigned space when they leave for the day.

e.   Cabinet storage that is not designated for graduate student use will be apportioned among graduate faculty who desire space. Requests for cabinet storage space should be

made to Dr. Brian Overholser or Mindy Schultz . The use of this space should be limited to materials that are needed to support active research projects or courses. Faculty should not store materials in Room 552 that they do not anticipate a need to access in the foreseeable future (1 year).

f. Counter tops are to be kept clean and uncluttered, and are not to be used for storage.

g. Floors are not to be used for storage.

h. Individuals using Department space should not remove any materials other than one's own personal belongings.

i. Any problems with the use of Department research or graduate space should be reported to the graduate committee chair, Dr. Brian Overholser or Mindy Schultz .

7. <u>OFFICE SPACE</u>

Each graduate student will be assigned office space for use in completing course assignments, for carrying out research activities, for teaching assistantship related tasks such as grading or preparing for course activities, and for other program related functions. The office space provides a convenient area for completion of work between classes and personal space for study and research.

SECTION 6

Additional Sources of Information Regarding
Policies and Procedures

The following sources provide additional information regarding policies and procedures related to graduate study at Purdue University. Students share the responsibility with their major professor of being aware of policies not specifically addressed in this document.

1. Policies and Procedures for Administering Graduate Student Programs:
    https://catalog.purdue.edu/content.php?catoid=7&navoid=2929&_ga=2.20719930.344916276.1624542271-1135995674.1601926729 describes University regulations which apply to all graduate students.

2. Policies and Regulations for College of Pharmacy describes regulations related to graduate study in the College of Pharmacy can be found at the following web link:
    https://www.pharmacy.purdue.edu/current-students/resources/gradmanual?_ga=2.50989739.344916276.1624542271-1135995674.1601926729

3. Your major professor or current advisor should be able to help you clarify policy and procedure-related questions or direct you to a source of additional information. These sources include the Graduate Affairs Chairman, the Department Head, the Dean's Office, or the Graduate School.

Appendix A

PURPOSE OF A DOCTORAL RESEARCH PROGRAM

Introduction

The purpose of a Ph.D. program is to train independent, reliable, and competent research scientists. Although many holders of Ph.D. degrees find employment that does not involve research, having the degree implies that an individual is able to pursue a research problem to a meaningful conclusion. The research experience obtained in acquiring the Ph.D. degree should assure that the awardee understands and accepts the values of scientific research and is capable of using professional standards in all activities, from teaching to administration to research.

The Ph.D. candidate is not trained as a technician. Rather, the education of every student should be sufficiently varied so as to give a theoretical understanding of the major techniques in current usage and should include enough practical experience to encourage the use of any methods that might contribute to the solution of problems. However, given that collaborations within research teams and between established scientists in different institutions are characteristic of present-day research, the student should not be over-trained in technique to the exclusion of other skills essential to research success.

Role of Formal Graduate Courses

Formal courses are a convenient route to acquiring information in a field of study and are frequently used to expand the general information base of students. Because the primary goal of graduate training is gaining independence and becoming familiar with the pertinent literature, formal courses are useful to the graduate program only if they allow the student to become competent in acquiring knowledge independently and if the acquisition of information is not used as the dominant measure of the student's development. Graduate-level courses should therefore facilitate the student's use of the literature and be concerned with the student's active self-education. In as much as the independent scientist needs to keep up with developments in the field, any required graduate courses should be directed toward this future need.

Graduate courses should be designed to develop permanent intellectual skills rather than the accumulation of transient, memory-based information, and should contribute to the development of a professional attitude. Regardless of course content or format, accumulation of credits by passing courses does not provide evidence that the candidate is better prepared to contribute to science. Too much emphasis on coursework can disrupt experimental work, while the knowledge and skills that they may foster can be acquired in other ways (e.g., journal-club activities, reviews of the literature on selected topics, and seminars on topics unrelated to the research).

Role of the Research Advisory Committee

Though the doctoral process is often viewed as being based largely on the supervisor-candidate relationship, the complete training of the candidate to meet these standards may be, and frequently is, beyond the ability of the supervisor. Few, if any, supervisors are completely self-sufficient, so other academics and doctoral candidates have an important role in a candidate's training. This not

only broadens the scope of the learning environment for the candidate, but also demonstrates the social and interactive nature of scientific research.

It is the role of the department to provide the environment in which the expected skills and competencies of the student can be acquired.

Duration of Doctoral Training

The transition from student to professional does not proceed at the same rate for everyone. An even greater variable is the period for completion of various research projects. It is not reasonable to expect that the requirements for a Ph.D. degree can be completed within a short time. Sometimes outside forces apply pressures and limit the time for graduate training. When this happens, members of the profession should resist awarding degrees prematurely or rejecting students who could become useful professionals if they had longer periods of training. A Ph.D. degree should identify an individual who has acquired high standards of scientific research and who does not compromise those standards to meet arbitrary deadlines.

Because the candidate is expected to acquire or develop a professional philosophy and professional values in addition to technical knowledge and skills, regardless of success in research, the period of training should not be less than 3 years.

The progress of every candidate should be monitored by a supervisory committee. Decisions about abandoning unproductive projects should not come suddenly after several years of research, but should arise from discussions with the candidate while there is still time to complete the degree within the conventional period. Serious questions must be asked early in the training process about the abilities of the candidate to complete the type of work that will lead to a satisfactory dissertation within a reasonable time, but arbitrary time limits should be flexible.

The Doctoral Dissertation

The doctoral dissertation is the ultimate tool for evaluating the acquisition of the skills and abilities required for certifying a candidate as a competent, independent scientist. It must serve not only to ascertain that the student has participated in successful, meaningful research but also that the student's contributions have been significant.

The doctoral dissertation may take different forms. It usually is a lengthy document that thoroughly reviews the literature, explains the problem(s) researched, describes the methods, provides a complete presentation of experimental results, and offers a long discussion of the interpretation and implication of the findings. It should show clearly that the candidate has put the research into scientific perspective and that he/she understands the findings, their applications and has identified further areas for study.

The size or volume of dissertation material should not be used as a criterion in its evaluation. The Ph.D. degree should be awarded only for a dissertation that contains original work deemed suitable by the examining body for publication in an established, refereed journal in the field.

Appendix B

GENERAL PLAN FOR PHPR DEPARTMENT GRADUATE STUDENT
APPOINTMENTS AND PROGRESSION GUIDELINES
Funds and Student Progress Allowing

Time Period	Appointment	Priority Work Plan
Year 1	0.5 TA	Coursework (about 24 cr.) and seminar, TA, explore research interests
Summer 1	0.5 RA	Coursework (about 6 cr.), M.S. thesis project development
Year 2	0.50 TA or 0.25 TA + 0.25 RA	Coursework (minimal), and seminar, TA, undertake and complete M.S. thesis defense, work with major professor in developing a proposal for fellowship support
Summer 2	0.5 RA	Assist faculty with an ongoing research project, explore Ph.D. dissertation ideas
Year 3	Fellowship + 0.25 TA or 0.5 TA/RA	Coursework (about 24 cr.) and seminar, TA, Ph.D. dissertation project planning, prelim exams
Summer 3	Fellowship or 0.5 RA	Initiate Ph.D. dissertation research
Year 4	Fellowship + 0.25 TA or 0.5 TA/RA	Seminar, complete coursework, and Ph.D. dissertation

Appendix C

GRADUATE STUDENT PROGRESS REPORT

Annually, each graduate student in the Pharmacy Practice Department shall submit to his/her major professor/advisor, a typed report outlining the items noted below.

A.   Progress on plan of study/coursework - This section shall review achievements in coursework. Any deviation from the original plan of study should be noted along with explanatory notes pertaining to performance and/or perceived contribution of the coursework to the plan of study.

B.   Review of TA/RA assignment and achievements - This section shall outline the TA and/or RA assignment(s) for the period represented and shall document the types of experiences gained [TA: lectures provided/leadership opportunities/implementation of innovative ideas; RA: research accomplished/new perspectives/techniques experienced or mastered]. Special note should be accorded as to how these activities contributed to individual growth and to the mission/plan of the Department.

C.   Review of research progress - This section shall review achievements in research over the period represented. This review shall include, but not be limited to, a report on efforts and accomplishments toward (as applicable): review of the literature for definition of the research problem and/or evaluation of results; development and refinement of the research design; implementation of the research protocol; data compilation and analysis; dissemination of the results; funding for the project or subsequent projects; completion of the thesis. Special note should be given to events/circumstances/results that led to any deviation from planned progress at this point.

D.   Planned progress within the graduate program during the next review period - This section shall review plans (as applicable or known) for coursework, TA/RA assignments and progress on thesis research in the upcoming review period. This section will be the basis for subsequent evaluation reviews, therefore it is important that it reflect an accurate appraisal of likely progress.

E.   Other plans of note (optional) - This section shall include additional plans not reflected in part D that may influence the extent or the completion of the progress outlined. These may include items such as attendance at national meetings, presentation of papers, publication of manuscripts and any outside work activities.

F.   Self-evaluation and assessment of progress - This section shall include a summary statement reflective of your evaluation of progress-to-date relative to your expectations for the period (i.e., below/met/exceeded expectations) and your plans for future progress.

Appendix D

GRADUATE STUDENT PROGRESS EVALUATION FACTORS

1.   Vision for career plans related to degree completion.

2.   Work ethic

   A. Hours per week devoted to graduate program
   B. Plan for time use in relation to goals
   C. Productive use of hours devoted to goal achievement
   D. Follow-up on assignments
   E. Persistence/pursuit for excellence
   F. Continuous self-evaluation of plan and refinement of strategies to complete it

3.   Initiative in developing literature review(s) and writing skills.

4.   Writing abilities and effort to improve on identified weaknesses.

5.   Oral presentation skills

6.   Conceptual skills

   A. Vision for Pharmacy
   B. Ability to see important problems
   C. Ability to relate factors in formulating an approach to study

7.   Creativity in thinking

8.   Teaching ability

Appendix E.

Requirements for Graduate Program
Health Services, Outcomes, and Policy*

Masters Requirements

HSOP 69600 Seminar in Health Services, Outcomes, and Policy**	1 hour
HSOP/PHPR Courses (i.e., HSOP 59800, HSOP 55600, HSOP 69000, HSOP 69000C,)***	7 hours
Statistics (STAT 50300 and STAT 50200)	6 hours
Thesis research (PHPR 69800)	6 hours
Elective Coursework	10 hours
TOTAL HOURS REQUIRED	30 hours

(A typical M.S. Program includes 28-30 hours of coursework plus 6 or more hours of research credit. The minimum number of credits is 24 hours plus 6 hours of research. Plans of Study are configured slightly differently from above and usually include 19-20 hours in the Primary area and 9-10 hours in the related area. For a M.S. program the Primary area usually consists of PHPR courses and major focus area courses; the related areas include statistics and methods courses.)

Ph.D. Requirements (includes 30 hours of M.S. work)

HSOP 69600 Seminar in Health Services, Outcomes, and Policy**	1 hour
HSOP/PHPR Courses[1] (i.e., HSOP 59800, PHPR 66400, HSOP 55600)***	11-12 hours
Statistics and Research Design (STAT 51200, STAT 51400, STAT 52500;	
MGMT 62500, MGMT 65000; SOC 58000, SOC 58300, SOC 68100; AGEC 60800)	12 hours
Thesis Research (PHPR 69900 / PHPR 69800)	42 hours
Major Area	15-18 hours
Elective Coursework	9-12 hours
TOTAL HOURS REQUIRED	90 hours

(A typical Ph.D. Program includes 54 - 65 hours of coursework plus 30 or more hours of Ph.D. research credit. The minimum number of credits is 48 hours plus 42 hours of research for a total of 90 hours for both the M.S. and Ph.D. work. Plans of Study are configured slightly differently from above and usually include 30 - 40 hours in the primary area and 18-25 hours in the related area. For a Ph.D. program the Primary area consists of PHPR courses and major area courses; the related area includes statistics and methods courses.)
[1]HSOP course requirements are in addition to masters HSOP course requirements

  *These requirements may be modified with permission of the student's graduate advisory committee and the
    Head of the Department.

 **Graduate seminar is to be taken each semester in the program for credit; one credit hour
    appears on the student's Plan of Study.

***PHPR 59800   Introduction to Research 1 to 3 cr.
    PHPR 66400   Research Techniques and Proposal Development 2 cr.
    HSOP 55600   Health Care Economics and Public Policy 3 cr.
    HSOP 69000   Pharmacoeconomics
    HSOP 69000C Pharmacoepidemiology

Major and Elective Coursework for Graduate Students
in Health Services, Outcomes, and Policy

Major Areas

A major area should correspond with the research interests and goals of the Graduate student and his/her major professor. The areas available for a major are limited to those areas in which Health Services, Outcomes, and Policy graduate faculty have interests. A major area may draw upon a variety of departments on campus in order to provide the necessary depth of coursework supporting the focus area.

Health Outcomes
Health Care Economics
Health Care Marketing
Health Care Management
Health Care Policy
Health Care Systems
Social and Behavioral Sciences

Elective Coursework

There are a number of departments on the West Lafayette campus that provide elective coursework relevant to the needs of our graduate students. The following Departments provide courses that may be drawn upon to fulfill major focus area objective or as a source of elective coursework.

Communication
Consumer Science and Retailing
Computer Science
Economics
Educational Curriculum and Instruction
Educational Foundations and Administration
Educational Psychoeducational Studies
Health Education and Promotion
Management
Medical Sociology/Sociology
Organizational Behavior and Human Resource Management
Organizational Leadership and Supervision
Political Science
Public Policy
Psychology

Appendix F

Requirements for Graduate Student Programs
in Clinical Pharmaceutical Sciences*

<u>Masters Requirements</u>

HSOP 69600 / CLPH 69600, Graduate Seminar**	1 hour
Statistics (STAT 50300 or GRAD G651 and STAT 50200 or GRAD G652) or equivalent	6 hours
Clinical Pharmacology Courses (PHAR F804 and PHAR 836 or equivalent[2])	6 hours
Elective Coursework	12 - 15 hours
Thesis Research (PHPR 69800)	<u>6 hours</u>
Total hours required	31 - 34 hours

(Typical M.S. program includes 28-30 hours of coursework plus six or more hours of research credit. The minimum number of credits is 24 hours plus six credit hours of research. Plans of study usually include 19-20 hours in the primary area and nine to ten hours in the related \i.e., elective area.)

<u>Ph.D. Requirements (assumes 30 hours of M.S. work)</u>

HSOP 69600 / CLPH 69600, Graduate Seminar**	1 hour
Clinical Pharmaceutical Sciences[1] (GRAD G890, Grad G865, CLPH 6xA, CLPH 6xB)	11-12 hours
Statistics and Research Design (PHPR 66400; STAT 51200, STAT 51400)	10 hours
Elective Coursework	10-12 hours
Dissertation/Thesis Research (PHPR 69800 / PHPR 69900)	<u>42 hours</u>
Total hours required	90 hours

(Typical Ph.D. program includes 54 - 65 credit hours of coursework plus 30 or more hours of research credit. The minimum number of credits is 48 hours plus 42 hours of research for a total of 90 hours for both the M.S. and Ph.D. Plans of study usually include 30 - 40 hours in the primary area and 18-25 hours in the related, i.e., elective areas.)

[1]Clinical pharmaceutical sciences course requirements are in addition to M.S. clinical pharmaceutical sciences course requirements

[2]Principles of pharmacokinetics/pharmacodynamics (CLPH 6900) has recently been developed as a joint course for pharmacy practice graduate students and Indiana University School of Medicine graduate students and fellows.

*These requirements may be modified with permission of the student's graduate advisory committee and the Head of the Department.

**Graduate Seminar is to be taken each semester in the program for credit; one credit hour appears on the student's plan of study.

***GRAD G651	Intro to Biostatistics I, 3 credits	
GRAD G652	Intro to Biostatistics II, 3 credits	
STAT 50300	Statistical Methods for Biology, 3 credits	
STAT 50200	Experimental Statistics II, 3 credits	
GRAD G890	Methods in Molecular Biology, 3 credits	
GRAD G865	Fundamental Molecular Biology, 3 credits	
CLPH 69000	Principles of Pharmacokinetics/Pharmacodynamics, 3 credits	
CLPH 6xB	Pharmacogenomics, 3 credits	

Major and Elective Areas for Graduate Students
in Clinical Pharmaceutical Sciences

Elective Coursework

Students in the graduate program are encouraged to take advantage of educational opportunities on campus to complement Department graduate course offerings. The following is listed as exemplary electives consistent with the major areas of study within the Department.

A. Clinical Pharmaceutical Sciences Electives
    Biostatistics
    1. STAT 51200 - Design of Experiments (IUPUI), cr. 3
    2. BIOS S598 - Topics in Biostatistics Methods (IUPUI), cr. 3
    Research Methods
    1. GRAD 890   - Methods in Molecular Biology/Pathology (IUPUI), cr. 3
    4. GRAD 660   -Clinical Research Methods (CTSI), cr. 3
    5. GRAD G504 - Introduction to Research Ethics (CTSI), cr. 3
    6. GRAD G505 - Responsible Conduct of Research (IUPUI), cr. 3
    7. GRAD G661 - Clinical Trials (CTSI). cr. 3
    8. GRAD G667 -Tools and Techniques in Translational Research (IUPUI), cr. 3*
    9. GRAD 655   -Research Communications Seminar (CTSI), cr. 3
                     Pharmacology
    10. MGEN 580   - Basic Human Genetics (IUPUI), cr. 3*

B. Instructional Methodology and Continuing Professional Education

    1. EDCI 560   - Microcomputer Applications for Education and Training, cr. 3
    2. EDCI 561   - Computer-Assisted Instruction, cr. 3
    3. EDCI 565   - Principles of Adult & Continuing Education, cr. 3
    4. EDCI 570   - Media for Education and Training, cr. 3
    5. EDCI 571   - Preparation of Instructional Materials, cr. 3
    6. EDCI 572   - Introduction to Instructional Development &
                     Communication, cr. 3esources
    7. EDCI 591D - Delivery Systems in Adult Education, cr. 3
    8. EDCI 591   - Special Topics in Education, cr. 1-3
    9. EDCI 663   - Interactive Video, cr. 3
    10. EDCI 664   - Courseware Design for Computer-Based Instruction, cr. 3
    11. EDCI 670   - Seminar in Instruction Research & Development, cr. 1
    12. EDFA 603   - The American College & University, cr. 3
    13. EDPS 532   - Measuring Academic Achievement, cr. 3
    14. EDPS 634   - The Psychology of Learning & Teaching at the College
                     Level, cr. 3
    15. PSY 695   - Psychology of Learning and College Teaching, cr. 3

C. Miscellaneous Elective Possibilities

    1. SOC 57400 - Social Organization of Health Care, cr. 3
    2. SOC 58000 - Methods of Social Research, cr. 3
    3. OBHR 633   - Human Resource Management, cr. 2