HEALTH OUTCOMES AND PHARMACY PRACTICE (HOPP) DIVISION

GUIDE TO GRADUATE STUDY

The University of Texas College of Pharmacy

This "HOPP Guide to Graduate Study" is intended to act as an informative supplement and is not intended to supersede University or College of Pharmacy policies on graduate studies.
GUIDE TO GRADUATE STUDY

HEALTH OUTCOMES AND PHARMACY PRACTICE DIVISION

INTRODUCTION

Graduate education, research, and scholarly work leading to the Master of Science and Doctor of Philosophy degrees from this division are designed to assist the student in attaining the highest level of professional and academic competence in the fields of Pharmacy Health Outcomes and Pharmacy Practice.

The objective of the graduate program in Health Outcomes and Pharmacy Practice is to prepare the graduate for the numerous opportunities in the economic, social, administrative, and clinical practice sciences related to pharmacy. The program is designed to meet the specific needs and objectives of the student in addition to providing a foundation of course work which is required of every graduate student seeking the degree. The program is designed to encourage the student to select a related minor field, whereby, expertise can be developed in that area as it relates to Health Outcomes and Pharmacy Practice.

Information and regulations described in this manual are meant to guide the graduate student in proceeding through the program of study. Advanced degrees in the College are not awarded solely on the basis of the completion of courses and examinations and the submission of a thesis or dissertation. The student is also judged by the graduate faculty on the ability to design and carry through work of the student's own creation, on the qualities of industry and invention, and on the personal character and attitude expected of a person holding an advanced degree from The University of Texas. The estimation of the fitness of each graduate candidate rests upon the determination by the graduate faculty of the College of Pharmacy and Dean of Graduate Studies of The University of Texas.

DIVISION GRADUATE ADVISOR

The graduate advisor for the Health Outcomes and Pharmacy Practice division (Dr. Karen Rascati) assures that students are aware of the course requirements and meet minimum standards. Core courses for Health Outcomes and Pharmacy Practice graduate students are fairly standard (see Master's and Ph.D. checklist for more information on coursework). After the student chooses a Supervising Professor, that Professor assumes the major responsibility for academic advising and supervision, though paperwork must still go through the office of the Graduate Advisor. Further information and assistance can be obtained from the College of Pharmacy Graduate Coordinator.

Registration for Continuing Graduate Students

Registration in the Graduate School beyond the first semester depends on satisfactory progress in fulfilling any admission conditions that were imposed, meeting any requirements made in writing, and maintaining a grade point average of at least 3.00 for all upper-division and graduate courses. For further information about grade requirements, see the section "Grades." Make an appointment with the division’s graduate advisor before registering for courses in order to obtain approval and update your progression worksheet. Each Fall and Spring you will also be asked to evaluate your recently completed courses, so that future students may benefit from your experience/advice. Your advising form (see Appendix A) must be signed by the division graduate advisor.
HOPP SEMINAR
Graduate students not in doctoral candidacy must register for and attend the Health Outcomes and Pharmacy Practice seminar class each fall and spring semester. Doctoral candidates do not need to register for seminar, but are expected to attend and participate in seminar. Students are expected to make presentations each semester in seminar. Once a doctoral student has successfully defended his/her PhD proposal, the faculty member in charge of seminar may decide to lift the presentation requirement for that student. In the case of extenuating circumstances, a Ph.D. graduate student in candidacy may submit a written petition to his or her major professor and the seminar instructor to be excused from attending graduate seminar for a semester. This petition must be submitted prior to the start of the semester.

REVIEW OF PROGRESS
The faculty will evaluate each student’s progress in the program each Fall and Spring semesters. The evaluation will consider performance on: 1) coursework; 2) projects; and 3) teaching and research assistantships (see Appendix B and Appendix C for evaluation forms). Each student will be required to complete a progress report each semester (see Appendix B). In addition, faculty members who supervise graduate assistantships will complete an evaluation form (see Appendix C). Based on these evaluations, the HOPP faculty will rate the student’s progress as either satisfactory or unsatisfactory. These ratings will be used as a tool to: (1) provide constructive feedback (e.g., assignment of new student objectives and a time for completion) to ensure timely progression in the program; (2) recommend whether or not a student should continue to receive an assistantship; and (3) recommend whether or not a student should continue in the HOPP program.

TIME LIMITS
Master's degree. All requirements for a master's degree must be completed within one six-year period. Work over six years old can be reinstated only with the permission of the Graduate Dean, upon recommendation of the Health Outcomes and Pharmacy Practice faculty.

Doctoral degree. All completed work that is included in a doctoral student's degree program at the time of admission to candidacy must have been taken within the previous six years (exclusive of a maximum of three years of military service).

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

Minimally Acceptable Progress for PhD
- Pass all required coursework requirements – end of year 3 (supplementary coursework allowed after year 3)
- Pass qualifying exams – end of year 4
- Pass proposal defense – end of year 5
- Pass defense – end of year 6
THE MASTER OF SCIENCE DEGREE

SUPervising professor
Incoming students do not ordinarily choose a Supervising Professor until their second Fall semester. During this time, each new graduate is expected to talk with each faculty member in the Division. Upon choosing an area of specialization, the student should approach and obtain approval (see Appendix D) from a faculty member within the division to serve as their Supervising Professor.

Supervising Committee
Each master's degree program is developed under the guidance of a Supervising Committee composed of two or more members of a Graduate Studies Committee, one of whom is designated as supervisor, plus a third member who may or may not be a member of the Graduate Studies Committee. The supervisor must be a member of the Graduate Studies Committee and a member of the Health Outcomes and Pharmacy Practice division. The Supervising Committee is responsible for the quality, depth, and balance of the student's educational experience. The student, working with their supervisor, selects committee members. Students need to talk with prospective committee members to get their approval of their topic.

Program of Work
Each student’s program must include at least thirty semester hours of graduate-level course work, including the thesis. (See Appendix E - Checklist). Six semester hours of credit are granted for researching and writing the thesis. Course 698A (research project) must precede course 698B (writing period); 698A may not be repeated. Both 698A and 698B are taken on a credit/no credit basis. The student must register for 698B the semester he or she intends to graduate. The thesis cannot be accepted before the semester in which the student applies for graduation.

Ms Proposal Defense
Each student must submit a proposal of their project to members of the Master’s Committee once it has been approved by your supervising professor at least two weeks before the defense of the proposal. The proposal should contain the introduction, literature review, rationale, objectives and proposed methodology for the students' project. The student is responsible for reserving a room and A/V equipment for the defense.

Ms Oral Defense
An oral examination of the thesis is required by the division. A complete draft of the thesis (including the title page, abstract, table of contents, text, references, tables, and appendices) that has been approved by your supervising professor at least two weeks before the defense date. University-wide formatting guidelines must be followed. The defense date must be set to allow ample time for revisions. Non-committee faculty and graduate students may be invited to attend the defense as observers. At his/her discretion, your major professor may require that you complete and submit a manuscript based on your thesis before signing your graduation forms. The student is responsible for reserving a room and A/V equipment for the defense.

If the student does not pass the oral examination, a second opportunity will be given after an appropriate period to allow for further preparation. If the student does not pass the second examination, the student will be dropped from the graduate program.
PRE-DISSERTATION PROJECT

If an incoming PharmD, MBA graduate, or non-thesis MS student chooses not to pursue a Master of Science Degree, then a pre-dissertation project must be completed prior to the student entering doctoral candidacy status. The purpose of the pre-dissertation project is to give incoming students experience in conducting research prior to his or her dissertation project.

SUPERVISING PROFESSOR

During the Fall semester of their second year in the program, students will submit a concept proposal outlining a project topic. Based on research interests and areas of expertise, the student will be matched with a supervising faculty member. The student will work under the guidance of the supervising faculty member to develop and complete the project.

PROGRAM OF WORK

Each student’s program must include at least 30 semester hours of graduate-level coursework, including the pre-dissertation project report. (See Appendix E - Checklist for specific coursework requirements). The report is prepared under the direction of the supervising professor. Six semester hours of credit are granted for researching and writing the report. Course PHR 693A (research project) must precede course PHR 693B (writing period); 693A may not be repeated. To receive a grade for 693B, the student must prepare a final report and submit a manuscript of their project to a peer-reviewed journal. Qualifying exams for a PhD cannot be started until both PHR 693A and PHR 693B have been completed.

ORAL EXAMINATION

No oral examination for the pre-dissertation project is required.
THE DOCTOR OF PHILOSOPHY DEGREE

COURSE REQUIREMENTS
All the completed course work, which is included in a degree program at the time of admission to candidacy for a doctoral degree, must have been taken within the preceding six years (exclusive of a maximum of three years of military service). All doctoral work is subject to review by the Graduate Dean.

In addition to courses and research in a field of specialization, additional work is taken to broaden or supplement the field. This supporting work may consist of course work in one area or several; it may be in conference, laboratory, or problems courses; or it may be a supervised activity off campus relevant to the major interest. See Appendix E - Checklist for specific coursework requirements.

ADMISSION TO CANDIDACY
Students seeking the Ph.D. degree must be admitted to candidacy on the recommendation of the Graduate Studies Administrative Sub-committee. Students may not register for the dissertation until they are admitted to candidacy, and completion of coursework does not in itself constitute admission. Formal admission to doctoral candidacy consists of the submission and approval of the following:

1. Supervising Professor
   Incoming students do not ordinarily choose a Supervising Professor until their second Fall semester. During this time, each new graduate is expected to talk with each faculty member within the division. Upon choosing an area of specialization, the student should approach and obtain approval from a faculty member within the division to serve as their Supervising Professor. (See Appendix D)

2. Program of Work. The Program of Work comprises a list of courses taken and proposed and the prospective dissertation title. The Dissertation Committee may, in a review of the Program of Work, recommend additional course requirements to the Graduate Studies Administrative Sub-committee.

3. Qualifying Examination. Having completed the major portion of coursework, and having decided on a dissertation topic, the Ph.D. student shall request that the Supervising Professor convene a Committee for the purpose of administering a qualifying examination. The examining Committee shall consist of the Supervising Professor and at least 3 other faculty members who may or may not be on the Supervising Committee. One member of this Committee must be from outside the College of Pharmacy, at least two members of this Committee should be from the Health Outcomes and Pharmacy Practice Division, and at least half should be from the College of Pharmacy.

   The qualifying examination consists of three components: 1) a written closed-book exam which is a comprehensive examination of prior coursework and issues in Health Outcomes and Pharmacy Practice and related areas of study; 2) one written open-book data analysis assignment to be completed within a 7-day time period; 3) a second open-book assignment to be completed in a 14-day time period. The second open-book portion consists of a mini-proposal for your intended project, including the literature review on your topic, study objectives, and possible methodology for conducting your project. If your major professor has already approved your written proposal, he/she may require a different project for the second open-book assignment. All three parts of the examination must be completed within a 45-day time period.
THE DISSERTATION COMMITTEE
The Dissertation Committee advises the student on the research and writing of the dissertation, conducts the final oral examination, and approves the dissertation. There are a minimum of 4 members of the dissertation committee. The chairman of the Dissertation Committee ordinarily serves as the supervisor of research. Other members of the Committee should be consulted as appropriate. Occasionally, an adjunct faculty member may be recommended by the Graduate Studies Committee to serve as the research supervisor for a specific dissertation. When the research supervisor is not a member of the Graduate Studies Committee or not a member of the division, a member of the Graduate Studies Committee from the division will be appointed as co-chairman of the Dissertation Committee. At least two members of the committee should be from the Health Outcomes and Pharmacy Practice division, at least half of the members of the committee should be from the College of Pharmacy, and at least one member of the committee should be from outside the College of Pharmacy. If there are any changes made to the committee, you must file a change of committee form at that time. Changes in the dissertation committee must be submitted at least 30 days before the dissertation defense (Final Oral examination).

THE DISSERTATION PROPOSAL DEFENSE
Each student must submit a dissertation proposal which has been approved by your supervising professor to members of the Dissertation Committee at least two weeks before the defense of the proposal. The proposal should contain the introduction, literature review, rationale, objectives and proposed methodology for the students' dissertation project. The proposal should be successfully defended before data collection and analysis begins. The student is responsible for reserving a room and A/V equipment for the defense.

FINAL ORAL EXAMINATION (Defense of Dissertation)
A satisfactory final oral examination is required for the approval of a dissertation. A written request to hold the final oral examination must be submitted to the Graduate School at least two weeks in advance.

A complete draft of the dissertation, which has been approved by the supervising professor, (including the title page, table of contents, text, references, tables, and appendices) must be submitted to each member of the Committee at least three weeks before the defense date. University-wide formatting guidelines must be followed (these are available on-line). The defense date must be set to allow ample time for revisions. The Dissertation Committee Chair does not sign the signature page until revisions are satisfactory. At his/her discretion, your major professor may require that you complete and submit a manuscript based on your dissertation before signing your graduation forms. The student is responsible for reserving a room and A/V equipment for the defense.

Dissertation defense dates and times are published to allow non-committee members to attend. The examination covers the dissertation and the general field of the dissertation and such other parts of the student's program as the Committee determines. If the members of the Committee are satisfied that (1) the dissertation is an independent investigation in the major field and itself constitutes a contribution to knowledge, (2) the student has passed the final oral examination, and (3) the student has submitted for publication in Dissertation Abstracts International an abstract approved by the Committee, they indicate approval on the Report of Dissertation Defense. The decision of the Committee must be unanimous.
**BALANCE BETWEEN ACTIVITIES AND WORK**

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

**During their first full semester, each student must complete ‘conflict of interest’ training at**
[http://www.utexas.edu/research/rsc/coi/training.html](http://www.utexas.edu/research/rsc/coi/training.html)

**RESEARCH INVOLVING HUMAN SUBJECTS**

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

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

Information about required procedures, agenda deadlines, and guidelines for preparing research proposals are available from the Office of Sponsored Projects, Main Building 303 (471-6424) or at [http://www.utexas.edu/research/osp/](http://www.utexas.edu/research/osp/). It is advisable to consult this office in the early stages of preparing a research proposal in order to facilitate the review process. Work with your major professor to complete these forms.

**During their first full semester, all graduate students are asked to complete the tutorial on human subjects at** [http://www.utexas.edu/research/rsc/training/](http://www.utexas.edu/research/rsc/training/) **These must be updated every three years.**

**GRADUATE STUDENT / PROFESSIONAL ORGANIZATIONS**

The Pharmacy Graduate Student Association (PGSA) represents all graduate students in the College of Pharmacy. The president of this organization serves as a liaison to College Administrators and assists in obtaining funds for students wishing to attend professional meetings. Also, the PGSA provides a means for selection of graduate student representatives for the Graduate Administrative Sub-committee, Graduate Council, and Graduate Assembly.

Graduate students in our division may also join our student chapter of ISPOR (International Society for Pharmacoeconomics and Outcomes Research) and/or ISPE (International Society of Pharmacoepidemiology).

Graduate students can join most professional pharmacy organizations - such as American Society of Health-System Pharmacists, American Pharmacists Association, American Association of Colleges of Pharmacy, and NCPA - and other health-related organizations for reduced rates. Membership in organizations (local, state, or national); familiarity with their publications; and attendance at their meetings, conferences, and conventions can help a student make valuable professional contacts and gain knowledge in current issues related to pharmacy and Health Outcomes and Pharmacy Practice.
OTHER IMPORTANT INFORMATION

KEYS
Keys for the Health Outcomes and Pharmacy Practice graduate student offices and faculty office suites will be provided. Do not lend your keys to anyone. To minimize theft of computers, books, purses, etc., the graduate student offices should be locked at all times.

Each graduate student will receive an access card to enter the College of Pharmacy on holidays, weekends, and evenings. The west doors of the North (old) pharmacy building are the only doors to be used for entrance and exit when the building is locked. Using any other door to exit when the building is officially closed will activate a silent alarm at the University Police Department.

PHOTOCOPYING, SUPPLY, PHONE, AND MAIL
The division photocopier may be used for research and T.A.-related uses. The department is charged for each copy that is made - thus, you are asked not to make personal copies on the copy machine. Do not use the copy machine to copy books or course packets. Doing so is a potential violation of copyright law and an unnecessary expense to the division.

Supplies for research, teaching and classroom responsibilities are available. Let the division Administrative Associates know if supplies are running low.

Please use these resources wisely and do not abuse your access to the copy machine or office supplies.

No personal long distance phone calls are to be charged to the division. Ask your supervising professor for a long distance access code for research-related long-distance calls.

TOUCHING BASE
Each graduate student and faculty member has a mailbox in room PHR 3.210. Please check your mailbox and e-mail frequently.

ABSENCE RECORDS
If you are to be reimbursed for any university-related travel, you must fill out an Absence Record prior to your travel. If you are traveling for personal reasons, make sure the Division Administrative Associate and your major professor (and/or your supervisor if you are a TA) know when you will be gone and how to reach you. Absence Record forms are available from the Division Administrative Associate.

COMPUTERS
Students are required to have a personal computer capable of running the software used in this program. A variety of computers and printers are located in the graduate student offices. Please use them appropriately; do not keep your files on the hard drives; and clean up the computer area when you are finished. The university does not insure computers; thus, it is important that the graduate student offices be locked at all times.

AUTHORSHIP
Professor and peer collaboration on projects leads to questions about authorship of presentations and publications. Discuss and decide on authorship before writing an abstract or manuscript. Do not submit either an abstract or manuscript without the knowledge and approval of your co-authors. At his/her discretion, your major professor may require that you complete and submit a manuscript based on your thesis or dissertation before signing your graduation forms.
Appendix A
Graduate Advising Form - Page 1 of 1
Health Outcomes and Pharmacy Practice

Advising for Semester and Year ___________________________

Student Name: __________________________

Student UT- EID: __________________________

Courses:

_________________________________________

_________________________________________

_________________________________________

Advisor's Signature _________________________________________

Date: __________________

9
NAME:

E-mail address

Home address

Home or cell phone

Major Professor

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joined Grad School</td>
<td>2</td>
</tr>
<tr>
<td>IRB Training Certificate Expiration</td>
<td></td>
</tr>
<tr>
<td>COI Training Certificate</td>
<td></td>
</tr>
<tr>
<td>IF APPLICABLE</td>
<td></td>
</tr>
<tr>
<td>Finished MS Coursework</td>
<td></td>
</tr>
<tr>
<td>Completed MS or MS-level project</td>
<td></td>
</tr>
<tr>
<td>Finished PhD Coursework</td>
<td></td>
</tr>
<tr>
<td>Passed Qualifying Exams</td>
<td></td>
</tr>
<tr>
<td>PhD Proposal Defense</td>
<td></td>
</tr>
</tbody>
</table>

**Semester Courses**

<table>
<thead>
<tr>
<th>Name</th>
<th>Times</th>
<th>SEMESTER YEAR</th>
</tr>
</thead>
</table>

RA/TA/Residency/Fellowship

My accomplishments for last semester were:

My goals for this semester are:
Graduate Student Course Evaluation Form for Courses Completed Last Semester
(Please complete one form for each course – OUTSIDE of HOPP Courses)

Student Evaluator’s Name: ________________________________________________

Student Evaluator’s Minor(s) and/or Career Interests: _______________________

1. Course Title: __________________________________________________________

2. Course Number: ______________________________________________________

3. Semester/Year: _______________________________________________________

4. Name of Instructor: ____________________________________________________

5. Using the conventional grading scale, circle the grade you would give the instructor for his/her teaching effectiveness:

   A   B   C   D   F

   Comments:____________________________________________________________________

6. What grade would you give the course content as it relates to your program?

   A   B   C   D   F

   Comments:____________________________________________________________________

7. What specific material covered in this course, if any, do you think was particularly valuable to you as it relates to your career goals?

8. Would you recommend that other graduate students take this course? (Circle one)

   Yes   No

9. Would you recommend that other graduate students take courses from this professor? (Circle one)

   Yes   No

Comments:____________________________________________________________________
University of Texas policy requires that teaching assistants (TA) be evaluated each semester and that a written performance evaluation be on file for each semester they were employed. Please take the time and complete the following short evaluation questionnaire. Thanks so much.

1. Teaching Assistant Name__________________________________________________

2. Pharmacy Course:________________________________________________________

3. Date:_______________________

4. Listed below are seven TA behaviors we would like your evaluation. Please circle the response that best fits your evaluation of the TA. Thanks.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Average</th>
<th>Below Average</th>
<th>Poor</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Initiative</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Promptness</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Helpfulness</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Attitude</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Kept Expected Hours</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>Other, specify</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>NA</td>
</tr>
</tbody>
</table>

Please proceed to page 2
5. Do you recommend that this student be retained as TA?

- [ ] Yes
- [ ] Yes, but in a different course—please explain _______________________________
- [ ] Maybe, please explain_______________________________________
- [ ] No, please explain____________________________________________________

Faculty and Teaching Assistant Review

As a TA, I have read my TA evaluation and talked to the faculty member in charge of the class.

TA signature: ________________________________ Date: __________________

Faculty signature: ________________________________ Date: ________________

State and federal laws governing employee rights concerning access and privacy define the distributions of this document. This document is confidential and a copy will be made available to the Teaching assistant evaluated above. The information also will be made available to administrative staff and faculty whose duties require access to the information. The TA has the right to submit a written response that will be added to the student file.

Student (TA) Response (optional):

[Continued on back if needed]

Forward all completed evaluations to Stephanie Crouch, PHR 4.220.
Student Name: ______________________________

Student UT-EID: ____________________________

For ______ MS

______ PhD

Topic: ______________________________________

Permanent Supervisor/mentor: ____________________________

Faculty Name

Signature: _______________________________________

Faculty Signature

Date: __________________________
Appendix E
MS/PhD Coursework Checklist - Page 1 of 1
HOPP COURSEWORK CHECKLIST

___ Graduate Level Didactic Courses in Health Outcomes and Pharmacy Practice
M.S. - Check two; Ph.D. – Check two more

___ Pharmaceutical Marketing - PGS 386M (Summer; even years)
___ Pharmacoeconomics - PGS 393T (Spring; each year)
___ Managed Healthcare Systems - PGS 381N (Spring; odd years)
___ Health Behavior Theory and Medication Use - PGS 384N (Fall; odd years)
___ Intro to Pharmacoepidemiology - PGS 384S (Spring; even years)
___ Advanced Pharmacoepidemiology – PGS 381M (Fall; even years)
___ Health-Related Quality of Life – PGS 393Q (Summer; odd years)
___ Other substitute (Please specify ______________)

___ Statistics - M.S. - Check two; Ph.D. – Check two more

___ Introduction to Statistics - EDP 371 or Fundamental Statistics EDP 380E
___ Experimental Design and Inferential Statistics - EDP 482K
___ Correlation and Regression - EDP 382K - Topic 2
___ Multivariate Analysis - EDP 382K - Topic 4
___ Regression Analysis – SDS 384 – Topic 4
___ Multivariate Models – SDS 385
___ Other Substitute (please specify ______________)

___ Research Methods/Ethics – M.S.

___ Experimental Design and Research Methods in Healthcare - PGS 390K (Fall; each year)
___ Data Analysis in Healthcare - PGS 390J – (Summer; each year)
___ Research Ethics – PGS 185D (Fall; each year)

___ Research Methods – PhD
___ Advanced Research Methods – PGS 390U (Spring; odd years)

___ Scientific Communication / Pharmacy Disciplines - PhD
___ Communication Skills for Scientists - PGS 487Q (Spring; each year)
___ Pharmacy and its Disciplines – PGS 191Q (Spring; each year)

___ Minor Area Outside of Health Outcomes and Pharmacy Practice
M.S. - List two courses in the same discipline area; PhD – List two more
(Fellowship/residency hours may substitute)

__________________  _________________
__________________  _________________
__________________  _________________

___ Research Methods (3 hours) - (Outside of the College of Pharmacy); Ph.D. - List one

__________________

___ Theoretically based graduate level course (3 hours) - (Outside of the College of Pharmacy) –
PhD - List one

__________________

___ Any additional course(s) added by your supervisor.