

CHOICE

Graduate Student

Handbook

Graduate Program in

Comparative Health Outcomes, Policy, and Economics

Department of Pharmacy, School of Pharmacy
University of Washington

Box 357630
Seattle, WA 98195-7630

Graduate Program Director: Beth Devine, Pharm.D., MBA, PhD
206.221.5760 | bdevine@uw.edu

Graduate Program Associate Director: Josh Carlson, PhD
206.543.9649 | carloj@uw.edu

Graduate Program Advisor: Marina Gano, M.Ed.
206.616.1383 | mcgano@uw.edu

About this Handbook

The information contained in the Department of Pharmacy Graduate Student Handbook has been compiled for your reference. Students are responsible for knowing the information contained in this Handbook, as well as the information contained in UW reference sources such as the UW General Catalog and the Quarterly Time Schedule.

All rules, policies and information in this Handbook are subject to change, and the Program will annually issue an updated Handbook to reflect these changes.

To meet requirements for graduation, students will be held to the policies codified in the Handbook in the year they entered the Program.

If you have questions about this Handbook or the information contained therein, please contact the Graduate Program Director or Advisor.

Last Updated: 10/7/2020

Table of Contents

Mission, Vision, Diversity Statements	4
The Doctor of Philosophy Program	7
Program Requirements.....	7
Curriculum Overview.....	10
Minimally Acceptable Progress.....	13
Progression to Doctoral Degree.....	13
Master of Science Degree Requirements	21
General Student Policies	25
Course Waiver Policy	25
Graduate Student Appointments	26
Admission, Retention, and Graduation Standards	27
Grading Policy	28
Final Examination Policy	28
Academic Grievance Procedure	30
Student Conduct Policy	31
Travel Policy	37
UW Suspended Operation/Inclement Weather Policy	36
Fire Alarm Procedure Policy	37
Indemnification Policy	38
Policy on Special Accommodations	38
Libraries	38
Graduate Study Room	38
Sports & Recreation Facilities	38
School of Pharmacy Directory	39
Graduate Resources	42
Appendices	44
Appendix A: List of Suggested Electives.....	44
Appendix B: MS Individual Development Plan.....	47
Appendix C: PhD Individual Development Plan.....	66

The Comparative Health Outcomes, Policy, and Economics Institute

The University of Washington **Comparative Health, Outcomes, Policy, and Economics Institute (CHOICE)** conducts research and provides graduate and external training in health outcomes and policy research on health care technologies, with a focus on drugs, diagnostics, and devices. The overall goal of the program is to generate evidence that improves health care decisions for patients, clinicians, payers, industry, and government organizations.

CHOICE is an internationally recognized research and training program for health economics, pharmacoepidemiology, and pharmaceutical policy research.

Mission of the Program

- Conduct research on the clinical and economic effects of medicines and other health technology in patient populations.
- Provide graduate and postgraduate training in pharmaceutical outcomes research and policy.
- Disseminate timely information regarding pharmaceutical outcomes research and policies to government, the pharmaceutical industry, health care providers and the general public.
- Inform—through research and scholarship—regional, national, and international policies governing pharmaceuticals, pharmaceutical services, and other medical products.
- Serve as a regional, national, and international resource for industry research, consultation and training partnerships.

CHOICE Statement on Diversity, Equity, and Inclusion

CHOICE is committed to creating an inclusive academic community where every individual is treated fairly and with dignity and respect. We strongly believe that diversity enriches learning, broadens the perspectives of all in our program, and improves our sense of community. Diversity requires an atmosphere of inclusion, tolerance, respect, and equity.

Our equality and diversity principles:

- We value the tremendous diversity of the human experience and believe that this diversity strengthens our communities and our program.
- We believe that discrimination or exclusion based on individual characteristics and circumstances, such as age; disability; caring or dependency responsibilities; gender or gender identity; marriage and civil partnership status; political opinion; pregnancy and maternity; race, color, caste, nationality, ethnic or national origin; religion or belief; sexual orientation; socio-economic status; or other distinctions, is unjust and represents a waste of talent and a denial of opportunity for self-fulfillment.
- We recognize that patterns of under-representation and differences in outcomes at CHOICE can be challenged through positive action.
- We respect the rights of individuals, including the right to hold their own opinions and beliefs, but will not allow these opinions to be manifested in a way that is hostile or degrading to others.
- We expect commitment and involvement from all our faculty, staff, and students in working towards the achievement of our vision.

Department of Pharmacy

Vision

Our Vision is to be recognized nationally as a leader in pharmacy education and scholarship that optimizes the use of pharmaceuticals and the provision of pharmaceutical care.

Mission

Our Mission is to prepare pharmacists to provide optimal pharmaceutical care and to prepare graduate and post-graduate students to provide leadership in scholarship and practice. The Department generates and disseminates knowledge to assure the safe, effective, and cost-efficient use of medications.

Values

Our values are:

- The pursuit of excellence in education and scholarship
- A commitment to providing leadership and innovation in pharmaceutical care towards the enhancement of the profession of pharmacy and the health and well-being of the population
- A sense of community premised on collegiality, mutual trust and respect, and accepting accountability to the University and the citizens of the State of Washington

School of Pharmacy Strategic Plan, 2015

Vision

- We will be the global leader in pharmacy education, research & service, committed to providing a transformative learning experience in a collaborative and diverse environment focused on improving the health and well-being of the communities we serve.

Mission

- **Inspiring Education:** Develop exceptional, innovative and diverse pharmacy leaders and scientists.
- **Discovering Solutions:** Advance the science, development, implementation, and outcomes of safe and appropriate treatments.
- **Serving People and Communities:** Promote the health and well-being of the public, locally and globally.

Core Values

- Our mission, vision and strategic plan must reflect the values that define the unique identity and character of our School.

- **We Believe In:**
 - A Passion for Discovery and Learning
 - Excellence in Every Endeavor
 - Integration and Synergy of Research & Education
 - The Quality & Breadth of Our Academic Programs
 - An Essential Partnership of Students, Faculty & Staff
 - Cultivating Strong, External Collaborations
 - Embracing Diverse Perspectives, Beliefs & Cultures
 - Celebrating Scholarship, Achievements & Successes
 - Serving for the Greater Good of Society

Vision for Graduate Education, Postdoctoral Training, and Research

- To be recognized nationally and internationally as the premier School of Pharmacy for educating the next generation of scientific leaders who have the expertise to integrate knowledge in chemistry and biology, or health policy and economics, both to carry out cutting edge basic and translational pharmaceutical research, and to train critical thinkers who make the best informed decisions at preclinical and clinical stages of drug discovery and development.

Degrees Offered by the School

- The School is organized into the Departments of Medicinal Chemistry, Pharmaceutics, and Pharmacy.
- The three departments collaborate to provide educational instruction and research that facilitate the achievement of the School's mission and goals.
- The School offers the MS and PhD in Medicinal Chemistry, Pharmaceutics or Pharmaceutical Outcomes, and the MS in Biomedical Regulatory Affairs. A pathway is available to allow selected students the opportunity to begin a MS or PhD degree while completing the Pharm.D. (Joint Pharm.D./MS or Joint Pharm.D./PhD)
- The School also awards the professional Doctor of Pharmacy degree (Pharm.D.) to 100+ graduates each year through our traditional four-year curricular pathway.

THE DOCTOR OF PHILOSOPHY PROGRAM

The Doctor of Philosophy (Ph.D.) degree is the highest degree conferred by the University of Washington. The Department of Pharmacy has the responsibility to assure that students granted the Ph.D. degree have demonstrated excellence in scholarship and independent research, have attained advanced analytical skills, and possess the ability for creative and innovative thinking.

The University, its Graduate School, and Departments have the responsibility to provide the most favorable environment possible in which graduate students can develop their potential. This environment includes the following:

- 1) the graduate faculty;
- 2) the class offerings;
- 3) the research facilities;
- 4) the library resources; and
- 5) a stimulating group of capable graduate student colleagues.

Ph.D. candidates should have the motivation, intellectual ability, and desire to take maximum advantage of this environment to develop their potential as creative scholars and independent research investigators.

PROGRAM OBJECTIVES

This program will train research scholars to analyze the use, outcomes, and cost of healthcare technologies and policies for the promotion of public health and welfare. The program focuses on assessing health outcomes for both patients and society, in terms of effectiveness, safety, morbidity, cost-effectiveness, and efficiency. The focus of this program is on pharmaceuticals, devices and procedures.

The faculty and staff of the program believe in providing an enjoyable, stimulating, and productive experience for our graduate students. As outlined in this handbook, there are a variety of resources for students to draw upon to help ensure this goal is met. We encourage students to communicate with their academic advisor, dissertation chair, graduate program director, choice director, department chair, and dean, sequentially, as needed.

PROGRAM REQUIREMENTS

1. GRADUATE SCHOOL REQUIREMENTS

- Participants in the Ph.D. Degree program must satisfy the general requirements of the University of Washington Graduate School, as well as the additional requirements of the department in which they undertake their training. The requirements of the Graduate School are listed in Graduate School Memo 46: Graduate Degree Requirements: <https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-46-graduate-degree-requirements/>
- **Scholarship:** A cumulative GPA of 3.00 or above is required to receive a degree from the Graduate School, calculated entirely on the basis of numeric grades in 400 and 500 level courses. Failure to maintain a 3.00 GPA either cumulative or for a given quarter, constitutes low scholarship and may lead to a change-in-status action by the Graduate School.

- **Allowable Time Period:** The Graduate School requires that all work for the doctoral degree be completed within 10 calendar years, including time spent on leave from the University and applicable work done during the master's degree, if applied toward the residency or other requirements of the Ph.D.
- **Residency Requirement:** Doctoral degree students must earn a minimum of 90 credits, 60 of which must be earned at the UW. With approval of the Graduate School, a recent prior master's degree from another institution may be applied toward one year of resident study, provided the master's degree falls within the ten year time period allowed for completion of all work for the doctoral degree.
- **Passage of the Dissertation Proposal Defense.** (See Departmental Program Requirements below).
- **Dissertation:** A dissertation must be prepared and submitted to the Graduate School. This dissertation must be acceptable to the Dean of the Graduate School, represent a significant contribution to knowledge, and clearly indicates training in research. The student must satisfactorily complete a minimum of 27 credits of dissertation (800) over a period of at least three quarters, with at least one quarter occurring after the student passes the Dissertation Proposal Defense. With the exception of summer quarter, students are limited to a maximum of 10 credits per quarter of dissertation (800). The Graduate School requires that dissertations be published digitally using ProQuest. Upon completion, provide each committee member and Marina with a final digital copy of the dissertation, as submitted to ProQuest.

2. DEPARTMENTAL PROGRAM REQUIREMENTS

- **Required Core Courses:** In order to develop mastery of fundamental aspects of theory and methods, the core courses are considered essential for all students in the program. In rare instances core courses can be waived if the student has had recent similar coursework or is focusing in a distinct research area. Approval of the Graduate Program Director and the Chair of the CHOICE Curriculum Committee is required.
- **Scholarship:** In addition to the Graduate School requirement to maintain a cumulative 3.0 GPA, students must achieve a minimum passing grade of 2.7 in all required core courses.
- **Credits:** A minimum of 77 credits of coursework must be satisfied, exclusive of PHARM 800 (Dissertation) and PHARM 600 (Independent Research). These must include a minimum of 51 credits of core courses, 14 credits of electives (several classes are highly recommended), and 12 credits of seminar (PHARM 597). The minimum number of total credits required for graduation is 118.
- **Doctoral Preliminary Examination:** By the end of their second year in the program, students must satisfactorily complete the Preliminary Examinations demonstrating mastery of core concepts before they will be allowed to proceed in the doctoral program. Two attempts to pass each topic area of this examination are allowed.
- **Teaching:** Students are strongly encouraged to seek at least 1 academic quarter of teaching assistantships during their tenure in the program.
- **Continuous Enrollment and Official On-Leave Requirement:** Per UW guidelines, to maintain graduate status, a student must be enrolled on a full-time (10 credits/quarter), part-time, or On-Leave basis from the time of first enrollment in the Graduate School until completion of all requirements for the graduate degree (summer quarter excluded). Formal requests for on-leave status must be filed with the University on a quarterly basis. A specific CHOICE requirement is that only two consecutive quarters of leave (non-medical) will be granted during a students' progress toward their degree. Medical leave is not subject to this requirement. While working on their dissertations, students must make satisfactory progress to receive credit for PHARM 800 and have full or part-time status. For additional information, and to access the On-

Leave request, please see [Graduate School Memo 9: On-Leave Policy to Maintain Graduate Student Status](#).

Once students have completed 27 credits of 800-level dissertation work, if they do not need an RA/TA position, they may enroll for 1 credit per quarter (PHARM 597 –CHOICE Seminar) until the final quarter in which they are enrolled in the program. During the final quarter, students must be enrolled for a minimum of 2 credits. If employed as an RA/TA, the 10-credit minimum is still required for each quarter (summer excluded, which allows for 2 credits of enrollment).

➤ **Ethics Training:** All first and second year CHOICE graduate students, starting with the incoming 2010 class, must fulfill a School of Pharmacy Ethics Training requirement by attending all FIVE in-person or online courses offered here (discussion series not required): <https://depts.washington.edu/bhdept/bri>

➤ All first year post-docs must attend all FIVE summer BRI lectures, but not the discussion series.

Registration information: For the PI/Director, you may put Anirban Basu, basua@uw.edu. For the grant title, type “CHOICE” and “graduate student (non-trainee)” for position. You may skip registering for the discussion groups.

The topics covered are:

- Data Acquisition, Management, Sharing, and Ownership
- Research Misconduct
- Responsible Authorship and Publication
- Conflict of Interest
- Peer Review

We will track completion of these seminars as part of fulfilling the “research ethics” component of your graduate training.

➤ **Seminars:** All graduate students must participate in a minimum of twelve credits of seminar (PHARM 597) while in residence. Students are encouraged to present their work in seminar. All students are required to attend seminar until they have graduated from the program.

➤ **Dissertation Proposal Defense (General Exam):** In order to achieve official status as a doctoral candidate, students must complete a Dissertation Proposal Defense defending their choice of dissertation topic and demonstrating an understanding of the concepts and methods necessary for successful completion of the dissertation. The Dissertation Proposal Defense will be conducted by the student's Supervisory Committee and will consist of a written and an oral exam. Two attempts to pass this dissertation proposal defense are allowed. Registration as a graduate student is required during the quarter the dissertation proposal defense is completed. If the dissertation proposal defense is completed during summer quarter, the student must register for at least 2 credits that quarter.

➤ **Dissertation Defense:** A successful final examination, consisting of an oral defense of the dissertation, must be completed. The dissertation proposal defense and dissertation defense cannot occur during the same quarter.

➤ **Registration for final quarter:** Registration as a graduate student for 2-credits is required the quarter that a Dissertation Defense occurs AND the quarter the dissertation is submitted to the Graduate School. Typically, these two steps occur within the same quarter, but occasionally they differ. The degree is conferred the quarter in which the student's dissertation is electronically submitted to the Graduate School.

PHD PROGRAM CURRICULUM OVERVIEW

The program of course work can be divided into four components:

- 1) core courses;
- 2) electives;
- 3) seminars and literature review;
- 4) independent research and dissertation.

A suggested schedule and details for completion of this curriculum follows in the Progression to Doctoral Degree section.

Core Program

The core program consists of the following classes and is designed to provide the knowledge and skills necessary to achieve mastery of the subject. If students wish to substitute any core class, they must inquire with the Graduate Program Director, and approval of requests will be determined by the CHOICE Curriculum Committee. Students will be responsible for all preliminary examination material, regardless of whether they waive a course.

Course	Credit
EPI 512, 513 Epidemiologic Methods I & II	8
BIOST 511, 512, 513 (or 517-518) Medical Biometrics I, II & III	8-12
PHARM 532 Methods in Pharmaceutical Policy Analysis	4
PHARM 533 Pharmacoepidemiology	3
PHARM 534 Economic Evaluation in Health and Medicine	3
PHARM 535 Assessing Outcomes in Health and Medicine	3
PHARM 536 Advanced Methods in Economic and Outcomes Evaluation in Health and Medicine	3
PHARM 568 Health Economics	3
HSERV 523 Advanced Research Methods	4
HSERV 525 Advanced Health Services Research Methods III: Casual Inference Using Observational Data	4
BIOSTAT 537 Survival Data Analysis in Epidemiology	4
PHARM 597 Graduate Seminar	12
PHARM 800 Dissertation	27
Electives	14
PHARM 600 Independent Study	18
TOTAL MINIMUM CREDITS	118*

**122 minimum credits if student takes the BIOST 511, 512, & 513 series.*

Electives

Students should determine their choice of electives in consultation with their Academic Advisor (appointed at beginning of training) or their Dissertation Advisor (once one is identified). Electives are chosen based on research interests and dissertation topic. 14-credits of elective classes **MUST** be taken for a numerical grade, when there is a choice between taking the class for a grade, or for “credit/no credit”. Elective credits earned

beyond the 14-credit requirement may be taken as credit/no credit or satisfactory completion.

Students completing 20 hour/week RA positions that include a tuition waiver are required to register for 3-5 PHARM 600 credits; the number of credits is at the discretion of the faculty member. Students completing non-RA independent studies are required to register for the number of credits deemed appropriate by the faculty, commensurate with project scope.

See Appendix A: List of Approved Electives

Seminar

PHARM 597- CHOICE Graduate Seminar (1 credit/quarter; 3 quarters/year) offers students the opportunity to discuss a variety of topics with faculty, fellow students, and guest speakers. Students are required to enroll in PHARM 597 each quarter until they graduate, unless other arrangements are made with the Graduate Program Director.

Independent Research Credits

Independent research is an essential element of preparation for the Doctoral degree. The course designated for Independent Study is PHARM 600. Students may earn up to 9 *credit hours* per quarter at the discretion of their supervisory committee. A minimum of 18 credits of PHARM 600 are required for graduation.

Dissertation Credits

Doctoral Candidates must complete a minimum of 27 credit hours of Dissertation Research, PHARM 800. Students may begin enrolling in PHARM 800 upon approval of the Short Dissertation Proposal.

Summer Quarter Opportunities: 1st and 2nd Years

Following the preliminary examinations (see discussion later in this section), students have the summer quarter to explore research topics and future career interests. Options include, but are not limited to, research assistantships with CHOICE or affiliate faculty and paid summer internships locally, nationally, and internationally. One or more members of the CHOICE faculty will coordinate internship opportunities with affiliate faculty and corporate partners. Students should plan ahead for an enriching summer quarter experience that will complement their studies. Second year summer opportunities may include investigation into topics and data sources for dissertation research. The CHOICE faculty will maintain a list of industry-related summer internships for which students can apply.

INDIVIDUAL DEVELOPMENT PLAN (IDP)

All CHOICE graduate students will maintain an IDP with their advisor throughout the course of their program. The purpose of an IDP is to prepare you for your future career after you graduate from the CHOICE PhD program. It is important that you think carefully about your individual career goals and the skills you need to be successful in that career. It is quite likely that your career success will require a much wider range of skills than the ability to design and perform research. Your mentor and other resources at UW and affiliated institutions will be helpful, but you must take primary responsibility for your career preparation. The development, implementation, and revision of IDPs require a series of steps to be conducted by graduate students and their mentors. These steps are an interactive effort, and so both the student and the mentor must participate fully in the process.

	For Graduate Students	For Mentors
Step 1	Conduct self-assessment, a tool for you and your mentor(s) to identify your career goals and competencies to reach your goals	
Step 2	Write an IDP, including your PhD Progress Table and PhD Timeline. Share with mentor(s) and revise	Review IDP and help revise
Step 3	Implement the IDP and revise as needed	Establish regular progress review
Step 4	Identify and explore potential career paths with mentor(s). Assess how your knowledge and skills match the competencies required by your chosen career(s), and revise your IDP to prioritize developmental areas that you will need for your career(s).	Discuss opportunities with mentee

Once you have drafted your IDP, meet with your mentor(s) to discuss the draft, and schedule regular meetings to review and assess your progress. Make use of as many mentors as you find helpful—you will find that most people are very willing to help to guide you in understanding your goals and defining what mentoring you need. Your IDP should be considered a living document that will evolve over time as you move through your training. You will be expected to update it in consultation with your mentor annually, and before it is reviewed annually by the CHOICE Faculty.

IDP Review Schedule

Fall Faculty Meeting: 3rd years and above

Winter Faculty Meeting: 2nd years

Spring Faculty Meeting: 1st years (including MS fellows)

MINIMALLY ACCEPTABLE PROGRESS (MAP)

In order to remain in the Ph.D. program a student must continue to make progress toward the degree. The following norms have been established as Minimally Acceptable Progress (MAP) recognizing that most students will satisfy these requirements well before the indicated deadline.

Requirement	MAP Deadline
Pass Preliminary Examinations	By the end of year 3
Pass all course work requirements	By end of Spring Quarter of year 3
Establish a Supervisory Committee	By end of Autumn Quarter of year 4
Pass Dissertation Proposal Defense	By the end of year 2 after passing the Preliminary Examination
Dissertation Defense	2 years after passing Dissertation Proposal Defense

All students are required to satisfy these conditions for minimally acceptable progress. If one of the requirements for the Ph.D. is not satisfied by the year shown, the student will be placed on academic probation in that quarter. If the requirement is not satisfied by the following quarter, the student will be placed on final probation. Failure to satisfy the requirement within two quarters of the deadline shown will result in dismissal from the program.

FINANCIAL ASSISTANCE

The CHOICE Institute will make every effort to provide as much financial support as is feasible for aspiring doctoral students. However, the student must understand that such support is dependent primarily upon funds received from outside sources. This financial support is available in the form of research assistantships, teaching assistantships, and fellowships. The general CHOICE policy is to provide support for students through a combination of these sources for their first two years, after which time they are expected to identify funding sources in collaboration with their research advisors. Writing their own grant to support their dissertation work is encouraged for students aspiring to an academic career. Allocation of student funding is determined by a committee consisting of the Institute Director and Associate Director, and Graduate Program Director and Associate Director.

PROGRESSION TO DOCTORAL DEGREE

The PhD program is designed so that a well-prepared and focused student can complete the Ph.D. program in approximately four years. A suggested time frame is:

First & Second Year: Completion of core courses and preliminary examinations. In the second year, students should consider research involvement with faculty members to begin the process of determining their potential interests in dissertation research.

Summer Quarter after Second Year: Explore potential dissertation topics and data sources available for investigation of these topics.

Third Year: Selection of dissertation topic (with CHOICE faculty approval of short proposal) and establishment of Supervisory Committee. Ideally, a short proposal should be completed and approved by the end of the fall quarter of the third year. Completion of specialization coursework and Dissertation Proposal Defense follow.

Fourth Year: Completion of dissertation and Dissertation Defense. Some students will not complete their Dissertation Proposal Defense until the fall quarter of the fourth year, and their dissertation and Defense until the fifth year.

PROGRESSION TO DOCTORAL DEGREE – TASKS TO COMPLETE

1. Completion of Coursework

Students are expected to complete the core curriculum, specialization courses, and elective class work within their first three years as a PhD student. A suggested schedule of classes is attached as Appendix A. Students should be aware that many required courses are offered as a series, with individual classes available only one quarter of each year. Students who do not take the first course in a series or who fail to achieve the required 2.7 passing grade in one course in a series may be unable to move on to the second class in the series until the following year. It is recommended, therefore, that students follow the suggested schedule as closely as possible.

2. Preliminary Examinations

Note: This is still being finalized as of September 28, 2020. Once final policies are implemented, all students will be notified and the handbook will be updated accordingly.

Preliminary examinations will be given for demonstration of mastery of the core competencies of the Ph.D. Students will take 4 examinations covering core competencies after meeting coursework requirements. The four examinations will be in the following areas:

- 1) Biostatistics and causal inference
- 2) Epidemiology and pharmacoepidemiology
- 3) Health Economics and health policy
- 4) Cost and outcomes evaluation.

The preliminary exams will be given when the student has completed the second-year coursework for each examination, generally at the beginning of the Summer Quarter. The examinations will be in written format, may include take home analytic or modeling work, and will be graded numerically. An average passing grade of 70% in each of the core competencies is required. Students must satisfactorily complete preliminary examinations in all core areas before they will be allowed to complete the Dissertation Proposal Defense (General Exam).

Two attempts to pass each preliminary examination are allowed. If a student achieves less than a passing grade for any core area, the student is allowed to re-take that section of the examination in Fall Quarter of the same year. The repeat examination will also be written, and the student must receive an average grade of 70%. Should the student fail to pass the examination the second time, the student is no longer eligible to pursue the PhD and the student's advisor will explore the option of completing a master's degree in the program. A remediation program of study may also be required regardless of score (i.e. even students with passing grades may be required to complete a remediation program).

3. Selection of Dissertation Advisor and Doctoral Supervisory Committee

Selection and Appointment of the Doctoral Supervisory Committee should be completed after completing your preliminary exams and as you begin working on your Short Dissertation Proposal. The selection of the Doctoral Supervisory Committee should be given great consideration. This committee will supervise the student's research closely and will be the ultimate judge of the acceptability of his/her work and whether the student's achievement warrants the award of a doctoral degree. Students have a great deal of discretion in the choice of their dissertation topic. Students should take the time to get to know the research specialties of members of the faculty, and to consult with them about their proposed dissertation research, before requesting appointment of the Doctoral Supervisory Committee.

At the request of the student, the Graduate Program Advisor submits the names of the committee members via MyGrad. The committee is composed of a minimum of four members, at least three of whom (including the Chair and GSR) must be members of the Graduate Faculty with an endorsement to chair doctoral committees and two of which must be CHOICE faculty (core, affiliate, or adjunct).

The committee must include an expert in the field most relevant to the topic of the student's dissertation to ensure that the student has a broad understanding of the subject area. The chair of the committee is chosen by the student, and must be a regular or research faculty member of CHOICE (including joint faculty with other departments) and a member of the Graduate Faculty with the Endorsement to Chair. Faculty members with adjunct or affiliate appointments may chair the dissertation committee only with the approval of the Graduate Program Director. All members of the committee should be at the rank of Assistant Professor or higher. An additional non-voting Graduate School Representative (GSR) is identified by the student, and must not hold an appointment in the Department of Pharmacy or share any appointments with the committee chair that might suggest a conflict of interest.

Please review Graduate School Memo 13 for further information on identifying a doctoral supervisory committee: <https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-13-supervisory-committee-for-graduate-students/>

4. Short Proposal

A short dissertation proposal prepared by the student in consultation with their advisor and committee should be submitted by the proposed Chair of the student's Doctoral Supervisory Committee for review by the CHOICE graduate faculty at a regularly scheduled quarterly CHOICE Faculty meeting, or via email (by July 15th) during Summer Quarter.

Short Proposal Format

- Arial font size 11, single spaced, ½ inch margins
- Including all references, document must not exceed 4 pages
- Contents should include:
 - Title page (1 page)
 - Title and names only (include proposed dissertation committee)
 - Summary Page (1 page)
 - Background (1 paragraph)
 - Rationale (1 paragraph)
 - Overall research objective (1 sent.)
 - Specific aims -
 - list each scientific aim (what you hope to understand)
 - the approaches you propose to achieve each aim
 - state hypotheses for each aim
 - Summary implications of proposed work (1-2 sentences)
 - Details Page (1 page)
 - Data sources and Methods for each aim
 - Study limitations
 - Study implications
 - Proposed timeline- including plans for grant applications
 - References (1 page max)
 - An optional Addendum of no more than ½ page may be added that contains solely this information:
 - Table of aims with the data sources for each

- List of manuscripts

The CHOICE graduate faculty will meet to review the short proposal with the goal of providing feedback to the student and Committee Chair. At the discretion of the CHOICE faculty, the student may be required to provide a revised short proposal to the faculty based on feedback (final approval may be contingent on a sufficiently revised short proposal). Once approved by CHOICE faculty vote, a full dissertation proposal should be prepared for consideration by the Doctoral Supervisory Committee.

5. Full Dissertation Proposal

The student should prepare a full proposal in close collaboration with their entire committee. Ongoing communication with the Chair and committee is one of the most important elements of a successful dissertation.

Full Proposal Format

- Arial font size 11, single spaced, ½ inch margins
- Excluding title page, references, and appendices, main body of document must not exceed 13 pages
- Contents should include:
 - Title page (1 page)
 - Summary page (1 page – see Short Proposal format above)
 - Background/Rationale
 - Research objective
 - Specific aims and approach for achieving each aim
 - Study implications
 - Research Strategy - This section should describe what you plan to do and methodology for each Aim (~8 pages).
 - Significance*
 - Innovation*
 - Approach
 - Each Specific Aim
 - Hypotheses
 - Overall Evaluation Plan
 - Setting
 - Data sources
 - Analysis
 - Limitations
 - Alternative Approaches
 - Detailed timeline (~ ¼ - ½ page)
 - Assessment of human subjects approval requirement (~ ¼ - ½ page)

Appendices should only include lengthy, study related documents such as draft surveys and reference tables greater than 1 page in length.

**Significance and Innovation comprise no more than 3 pages, total.*

6. Dissertation Proposal Defense

The Dissertation Proposal Defense (referred to by the Graduate School as the General Exam) consists of a written and an oral component. The oral exam is both a Graduate School and CHOICE requirement, while the written exam is solely a departmental requirement. The Committee must agree that the student is ready to take

the exam based on reading the dissertation proposal and provide approval before the exam can be officially scheduled.

In addition, the student must have earned a minimum of 60 credits, including *all* departmental course requirements (53 minimum), a minimum of 6 credits of seminar, maintained full-time enrollment for 3 out of 4 consecutive quarters, and completed a minimum of 6 full-time quarters or the equivalent. Registration as a graduate student is required the quarter that the Dissertation Proposal Defense is completed. If the Dissertation Proposal Defense is completed during summer quarter, the student must register for at least 2 credits that quarter.

Students should contact Marina Gano (mcgano@uw.edu) to ensure they have completed all the department and Graduate School requirements prior to scheduling the Dissertation Proposal Defense. A summary of the Graduate School policy can be found here: <https://grad.uw.edu/policies-procedures/doctoral-degree-policies/general-examination-admission-to-candidacy-for-doctoral-degree/>.

The Dissertation Proposal Defense is completed after the dissertation proposal has been completed and approved by the CHOICE faculty, and before significant data collection or analysis for the dissertation research has begun. The student must identify a date and time for the oral defense where all committee members are available to attend. The next step is to formally schedule the proposal defense with the UW Graduate School. The request is made in MyGrad by selecting *Schedule a doctoral general or final exam*: <https://grad.uw.edu/for-students-and-post-docs/mygrad-program/>

The Dissertation Proposal Defense is administered by the Doctoral Supervisory Committee and is required for advancement to Ph.D. candidacy. The defense is focused primarily with the general topic of the student's dissertation and is designed to:

- a. Measure the student's ability to analyze and synthesize information,
- b. Determine whether the student has sufficient breadth of knowledge of the topic of his or her dissertation.
- c. Evaluate whether the student has adequate knowledge of recent advances and important problems relevant to the student's area of interest.

The written portion of the Dissertation Proposal Defense generally consists of one or two questions, some with several parts, from each committee member related to the student's individual dissertation topic, and may be focused on clarifying specific areas of the full dissertation proposal. Approximately one week will be allowed for the student to complete the written section. The oral portion of the exam includes a defense of the answers to the written questions and the full dissertation proposal before the Doctoral Supervisory Committee and the public. The oral portion is to occur as soon as possible after the successful written exam. A student who performs poorly on the written portion of the Dissertation Proposal Defense may be re-examined at the discretion of the Committee before the oral portion is completed. The Committee members may require additional course work to remedy perceived deficiencies in any relevant area. The student may take each section (i.e. written & oral) of the Dissertation Proposal Defense (General Exam) a maximum of two times. However, if a student did not pass their written component, they would not proceed with the oral component until the written component is satisfactorily completed. When the defense date is determined and the student is approved to proceed to oral exam following completion of the written exam portion, the student should notify Marina Gano to advertise the oral exam with the department community.

7. Completion of Dissertation

The decisions about acceptable dissertation organization and content reside with the student's Doctoral Supervisory Committee and ultimately the Chair of the Doctoral Supervisory Committee. The dissertation project is intended to assure that the student has achieved mastery in the full range of skills needed for advanced research in their field of study. It should also represent a unique and genuine contribution to knowledge in the field. Two substantively unique projects should be completed. Primary data collection is not required.

The dissertation must consist of two or more chapters that are each publishable research manuscripts. The Dissertation, as submitted to the Graduate School, must follow the Graduate School guidelines and should include 1) an abstract that describes the entire body of research, 2) an introduction to the dissertation that addresses the overall theme, rationale and specific aims, 3) results of the aims as individual chapters, and 4) a brief summary chapter that discusses the implications and potential impact of the findings from the research. The first chapter should be submitted to a journal of choice prior to the defense. The second paper should be 'submission ready' at the time of the defense; suggestions made at the defense should be incorporated before submission. Each paper must include an Introduction and Background, Methods, Results, Discussion, and Conclusions or meet the journal-specific requirements for submitted manuscripts.

Generally, a doctoral dissertation should include formulation of a hypothesis and the specific aims of the project, a literature evaluation, collection and analysis of data, and interpretation of results. The written report should include such topics as a statement of the problem approached, background, relevant previous research, methods, potential results, and implications. It should demonstrate not only the ability to locate and access required data, but also an ability to independently design and execute research projects, and to assess the implications and importance of the results.

For details concerning the formatting of your dissertation, review the following::

<https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/etd-formatting-guidelines/>

The process for submitting an electronic dissertation (ETD), can be found here:

<https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>

8. Appointment of the Dissertation Reading Committee

At least one quarter after the student has passed the Dissertation Proposal Defense, and several months prior to the desired date of the Final Examination, the student should ask at least three members of the supervisory committee who will serve on the reading committee. At least one of the members of the reading committee must hold an endorsement to chair doctoral committees. The reading committee is appointed to read and approve the dissertation. It is the responsibility of a reading committee to (a) ensure that the dissertation is a significant contribution to knowledge and is an acceptable piece of scholarly writing; (b) determine the appropriateness of a candidate's dissertation as a basis for issuing a warrant for a Final Examination and; (c) approve a candidate's dissertation. Once the chosen faculty agree, the student notifies the Graduate Program Advisor (Marina Gano), who completes the online request through MyGrad Program.

9. Scheduling of the Dissertation Defense (Final Exam)

Sufficient time should be allotted for review of at least two drafts of the student's dissertation by the Reading Committee. The Reading Committee should be given two weeks to review each draft of each dissertation manuscript. Together, the student and Dissertation Advisor should create a timeline, accordingly. A suggested timeline appears here:

- **8 weeks before defense** – first complete draft of all manuscripts to faculty; it is preferable that the manuscripts come in one-at-a-time prior to that.
- **6 weeks before defense** – faculty return all comments to student.
- **4 weeks before defense** – faculty read second round of manuscripts.
- **2 week before defense** – faculty return all comments to student.
- At least one manuscript submitted for publication this week. Student has final week to prepare for defense.

The student must schedule their Dissertation Defense (final exam) via [MyGrad](#) no later than three weeks prior to the desired date. When completing the request, the student should insert the date and time of the exam that has been previously agreed upon by all members of the supervisory committee. All committee members will receive an email notice of the date, time, and location of the exam. The Exam Warrant will be printed out by the Graduate Program Advisor, and given to the Chair of the Committee on the day of the defense. The defense consists of an oral defense of the dissertation before the entire Doctoral Supervisory Committee and the public. At least four members of a supervisory committee (including the Chair, Graduate School Representative, and one additional Graduate Faculty member) must be present at an examination. Registration as a graduate student is required the quarter that a Final Examination is taken AND the quarter the dissertation is submitted. The degree is conferred the quarter in which the student's dissertation is accepted by the Graduate School.

Note: it is recommended to work with Marina Gano to identify an exam location at the time of exam scheduling, as conference room availability can be competitive. Additionally, Marina will assist in promoting the exam to the department community.

Policies and Procedures for Video Conference in Doctoral Examinations: <https://grad.uw.edu/policies-procedures/doctoral-degree-policies/instructions-for-video-conferencing-in-doctoral-examinations/>

10. Final Submission of the Dissertation and Award of the Doctoral Degree

The Reading Committee will complete the online approval of the dissertation via MyGrad – Committee View (<https://grad.uw.edu/for-faculty-and-staff/mygrad-faculty-view/>) once satisfied with the final manuscript, following the Dissertation Defense.

All requirements for the doctoral degree must be satisfied by the last day of the quarter in which the student intends to graduate. The dissertation must be submitted to the Graduate School ETD Administrator site (ProQuest) by the end of the quarter in which degree requirements are completed, or by the deadline specified in the Graduate Registration Waiver Fee. Otherwise, the candidate will be expected to register for the following quarter and the candidate's degree will be awarded the following quarter.

In addition to University requirements for filing copies of the dissertation, a digital copy of the dissertation should be filed with each member of the committee and with the Graduate Program Advisor.

Details regarding the electronic submission process are outlined here:

<https://grad.uw.edu/for-students-and-post-docs/degree-requirements/preparing-to-graduate/>
<https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>

Refer to the Graduate School Dates and Deadlines page for quarterly deadline information:
<https://grad.uw.edu/for-students-and-post-docs/degree-requirements/dates-and-deadlines/>

MASTER OF SCIENCE

Types of MS Programs in CHOICE

CHOICE offers primarily structured MS programs. Those sponsored by the pharmaceutical industry require students to complete the first year in residence at UW and earn their MS degree in either 3 or 4 quarters. These students spend their second year in residence at the sponsoring company. Students funded by the Plein Fellowship may complete their MS in two years (6 quarters).

Master of Science Degree Requirements:

Coursework: The MS student must earn a minimum of 42 credits, including 29 credits in core courses, 3 credits in seminar, and 9 credits of thesis (PHARM 700). See Appendix A for a suggested schedule of classes. Interested PharmD students may complete some of these courses during their time in the professional degree program.

Core Program

The core program consists of the following classes and is designed to provide the knowledge and skills necessary to achieve mastery of the subject. **Core courses are in bold font.**

<u>Course</u>	<u>Credit</u>
EPI 512, 513 Epidemiologic Methods I & II	8
BIOST 511, 512, 513 Medical Biometrics I, II & III (or 517, 518)	8-12
PHARM 534, Cost & Outcomes in Health & Medicine I	3
Take 2 of the following 5 courses:	
PHARM 535 Assessing Outcomes in Health and Medicine	3
PHARM 536 Advanced Methods in Economic and Outcomes Evaluation in Health and Medicine	3
PHARM 568 Health Economics	3
PHARM 533 Pharmacoepidemiology	3
PHARM 532 Methods in Pharmaceutical Policy Analysis	4
PHARM 597 Graduate Seminar	3
PHARM 700 Thesis	9
Electives	
TOTAL CREDITS	42

Selection of Master's Supervisory Committee: Master's Supervisory Committees are comprised of a minimum of two graduate-level faculty members. Students should identify a chair early in their program; the second member may be added later in the program. **(Fall of the first year for one-year MS Fellows)**. The thesis chair is chosen by the student and must be a regular or research faculty member in the Department of Pharmacy (including faculty with joint appointments in other departments and a member of the Graduate Faculty). Faculty with affiliate or adjunct appointments may chair the thesis committee only with prior approval of the Graduate Program Director. Master's committees consist of at least two members of the Graduate Faculty. The second member need not be from the Department or School of Pharmacy. After selected Committee members have agreed to serve, the student should notify the Graduate Program Advisor, who will submit the names for acceptance to the Dean of the Graduate School. Most often, the fellowship director serves as the chair of the thesis committee.

Completion of Master's Thesis: The Master's thesis project may be based on research involving primary data collection, but is often a secondary analysis of data from a completed pharmaceutical study (or other dataset) to investigate a research question not yet considered in that study. The thesis should be formatted as a potentially publishable paper. Decisions regarding acceptable thesis format and content reside with the student's thesis committee.

You **must** submit a master's degree request before submitting your thesis. More information about the request including deadlines can be found here: <https://webapps.grad.uw.edu/student/mastapp.aspx>

For details concerning the formatting of your thesis please refer to this website: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/etd-formatting-guidelines/>

The process for submitting an electronic thesis, can be found in the Thesis/Dissertation website: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>

Time Period: Students are expected to complete the MS degree, including conduct of the thesis, within 3, 4, or 6 academic quarters. The thesis must be submitted to the Graduate School by the end of the quarter in which degree requirements are completed or by the deadline specified in the [Graduate Registration Waiver Fee](#).

Concurrent Pharm.D.-M.S. Degree Program

Program Description: The Department of Pharmacy offers a combined Pharm.D.-M.S. program in Comparative Health Outcomes, Policy and Economics . This program is available only to outstanding students currently enrolled in the School of Pharmacy's Pharm.D. program who have a proven interest in the field of Outcomes Research and Policy. The concurrent degree program allows students enrolled in the School of Pharmacy's professional program to pursue a Pharm.D. and M.S. degree, and to complete both degrees within a 5-year period. The program offers efficient and specialized training in pharmaceutical outcomes, through research and practical experience, and classroom training.

Admission: Once students are identified as potential candidates for the program, in-depth discussions will begin between the student, potential faculty advisors and the Graduate Program Director. A clear understanding of the program goals and requirements is crucial, because students need to take specific courses in their third year of the Pharm.D. program, which will develop core competency in the graduate program. Students will formally apply to the program in autumn of their fourth (and last) year of the Pharm.D. program. Admission requirements include: a statement of purpose, curriculum vitae, and three letters of recommendation. Applications will be reviewed by the program's admissions committee, and will be subject to the same standards and evaluation as our current graduate program. Admission is dependent upon faculty availability.

Degree Requirements: Degree requirements are the same as if the two degrees were completed separately. However, up to 12 credits earned toward the Pharm.D. degree may be counted toward the Master's degree, with the approval of the Graduate Program Director and if the credits are earned in a core course of the Master's curriculum. "It is the responsibility of the student to submit a written list of courses which apply toward each respective degree at the time he or she files an application for the Master's degree. The list must be approved by both programs." Students must complete a written thesis based on original research for the M.S. degree.

Curriculum:

29 credits theory and methods

9 credits thesis

Enrolled in Seminar every quarter while in the program

Total credits: 42-45

Expected Time to Degree: Students will be required to complete both degrees in 5 years.

Financial Assistance

Financial assistance is not guaranteed for the PharmD/MS Track-in program.

General Student Policies (applicable to PhD and MS Students)

COURSE WAIVER POLICY

1. Any required course may be challenged by demonstrating one of the following to the satisfaction of the student's academic advisor, Graduate Program Director and Curriculum Committee:
 - a. Successful completion of an equivalent course or courses;
 - b. Equivalent work experience in content area; or
 - c. Alternative career objectives (concentration in field of interest produces course conflict).
2. It is the expectation that waived courses will be replaced by elective course work in order to maintain the total number of completed credits for graduation.
3. Process:
 - a. The student should first discuss his/her situation with his/her faculty advisor.
 - b. The student writes a request for waiver. If the course involved is not a Pharmacy course, a copy of the course outline must be attached to the request.
 - c. After receiving the written request, the student's academic advisor notes his/her recommendation first, then routes it to the Graduate Program Director and Curriculum Chair for recommendation/vote. The student must submit his/her request no later than Monday of the fifth week of the preceding quarter for which the waiver is requested.
 - d. If pre-registration is underway, an entry code or request for entry code should be made—in case the waiver is denied.
 - e. Any questions about the waiver can be raised at a CHOICE faculty meeting, or communicated with the advisor.
 - f. A waiver request must be approved by the student's academic advisor, the Graduate Program Director, and Curriculum Committee.
 - g. Once approved or denied, the Graduate Program Director writes a memo to the student regarding the decision. A copy of this memo is placed in the student's file.
4. Faculty advisors do not have the prerogative to approve/deny a request for waiver independently.

Auditing Classes

Please review the process for auditing classes here: <https://www.washington.edu/students/reg/audit.html>

GRADUATE STUDENT APPOINTMENTS

At the University of Washington, there are three types of graduate student assistantships:

1. Teaching Assistant: work with students in a classroom, lab, or quiz section setting
2. Research Assistant: work on research projects; does not involve teaching
3. Staff Assistant: other types of duties such as, advising or administration

Academic Student Employees (ASEs), which include the above mentioned graduate student assistantship positions, are covered by the UAW/UW Academic Student Employee union contract. The union contract governs policies and procedures for appointments, salary, job definitions and leave time. You are encouraged to familiarize yourself with this contract: <https://hr.uw.edu/labor/academic-and-student-unions/uaw-ase/ase-contract>

Some, but not all, assistantships provide a tuition waiver and health insurance through the Graduate Appointee Insurance Program (GAIP). Your offer letter from the hiring department will confirm the length of employment, salary and benefits eligibility.

In CHOICE, graduate stipends are available to eligible students. Tuition waivers, teaching assistantships, research assistantships and select miscellaneous stipends are awarded each year to incoming students and second year students. Awards are provided to 3rd, 4th and 5th year students abased on need and availability.

International Students: International students in degree programs are eligible to serve in assistantship positions. You must meet university English proficiency requirements (both written and spoken) in order to work with students in a teaching capacity. For more information, please see Graduate School Memorandum 15: <https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-15-conditions-of-appointment-for-tas-who-are-not-native-speakers-of-english/>

Finding a position:

At the University of Washington, ASEs are hired directly by the employing department. Each department conducts its own individual hiring process and can let you know what is required to be considered for such positions. Many departments hire their own students. Other departments – particularly those that do not have graduate students or administrative units that hire graduate students – will recruit widely for positions from relevant degree programs across campus.

You may hear about ASE positions open to all graduate students from the following sources:

1. Email forwarded to you from CHOICE through the dopgradspds listserv
2. The UW Employment site under the category Academic Student Employee.
3. Handshake, the university's online job and internship database. You can also find postings for other campus jobs on Handshake.
4. The Graduate Funding Information Service (GFIS), located in the Allen Library. GFIS maintains a blog for both UW and external funding, including job postings for assistantships.

RESEARCH ASSISTANTSHIPS

Faculty conducting independent research generally have competitive research positions for graduate students that include tuition waivers, health benefits and a stipend. Research Assistant (RA) appointments are effective fall quarter through spring quarter. The standard appointment is at 50%, which is equivalent to 20 hours of work per week. Graduate student service appointees must enroll for at least 10 credits each quarter to remain

eligible for their appointments and receive salary, tuition waivers and insurance benefits, and must continue to make satisfactory progress toward their degrees.

Summer appointments are occasionally available. Students may either enroll in credits over the summer in an RA position and remain a salaried employee, or not enroll and work as an hourly RA. Review [Article 25 – Summer Non-registered Graduate Research Student Assistant](#) for more information.

3. TEACHING ASSISTANTSHIPS

The Department of Pharmacy has a limited number of Teaching Assistant (TA) appointments to award each year. As with Research Assistant appointments, Teaching Assistant appointments are effective fall quarter through spring quarter. The standard appointment is at 50%, which is equivalent to 20 hours of work per week. If a TA is exceeding 20 hours per week, they should notify the supervising faculty member, who should make the appropriate adjustments. If satisfactory resolution is not achieved, the TA should notify the Director or Associate Director of the Graduate Program. Graduate student service appointees must enroll for at least 10 credits each quarter to remain eligible for their appointments and receive salary, tuition waivers and insurance benefits, and must continue to make satisfactory progress toward their degrees. FERPA training is required, see link below.

<https://helpcenter.uw.edu/lessons/ferpa-basics-for-staff/>

Typical TA duties include: assistance with the conceptual design of a course; preparing examinations; playing a major role in coordinating the class; grading of written assignments; holding office hours for students; some formal teaching of class; facilitating a small group session as part of a course. Written evaluations of TA performance are completed each quarter by the course coordinator, and are distributed to the TAs, for their review and comment.

ADMISSION, RETENTION, AND GRADUATION STANDARDS

Graduate Study in Pharmaceutical Outcomes Research and Policy is designed to prepare students for advanced research with the aim of promoting safe, effective, and cost-efficient use of pharmaceuticals to provide patients with optimum health care and quality of life. The educational process requires assimilation of knowledge, acquisition of skills and development of judgment.

The University of Washington Department of Pharmacy endeavors to select applicants who have the ability to become highly competent researchers. As an accredited pharmacy school, it adheres to the guidelines promulgated by the American Council of Pharmaceutical Education in its "Guidelines for Accreditation Standards." Within these guidelines, the University of Washington Department of Pharmacy has the freedom and ultimate responsibility for the selection of students; the design, implementation, and evaluation of its curriculum; the evaluation of students; and the determination of who should be awarded a degree. Admission and retention decisions are based not only on satisfactory academic achievement, but also on non-academic factors that serve to insure that the candidate can complete the essential functions of the academic program required for graduation.

The School of Pharmacy, as a part of the University of Washington, is committed to the principle of equal opportunity. The School does not discriminate on the basis of race, color, creed, religion, national origin, gender, sexual orientation, age, marital status, disability, disabled veteran or Vietnam era veteran status. When requested, the University will provide reasonable accommodation to otherwise qualified students with disabilities.

Technical standards, as distinguished from academic standards, refer to those physical, cognitive, and behavioral abilities required for satisfactory completion of all aspects of the curriculum, and the development of

professional attributes required by the faculty of all students at graduation. The essential abilities required by the curriculum are in the following areas: motor, sensory, verbal and written communication, intellectual (conceptual, integrative, and quantitative abilities for problem solving and decision making), and the behavioral and social aspects for the performance of pharmaceutical care.

The University of Washington Department of Pharmacy graduate curriculum requires essential abilities in information acquisition. The student must have the ability to master information presented in course work in the form of lectures, discussion groups, case studies, small group projects, practicum experiences, computer technology, written material, and projected images. The student must have the cognitive abilities necessary to master relevant content in biomedical science at a level deemed appropriate by the faculty, and must be able to develop appropriate reasoning and decision making skills.

GRADES AND GRADING POLICY

An explanation of the grading system at the University of Washington may be found at the beginning of each Quarterly Time Schedule or the University Catalog. Admission to the Graduate School allows students to continue graduate study and research at the University of Washington only as long as they maintain satisfactory performance and progress toward completion of their graduate degree program. The Graduate School and the Department of Pharmacy requires that you maintain a minimum cumulative GPA of 3.0. The GPA includes all graded courses including those taught by CHOICE faculty and those that are provided by other departments in the University. (Peripheral courses may, at the option of the student and instructor, be taken on a satisfactory/not satisfactory basis -see Memo 19).

A graduate student whose performance and progress toward a degree is deemed unsatisfactory by the departmental faculty (see Minimally Acceptable Progress, page 16) will be placed on academic probation. Students on probation will be reviewed quarterly by their Supervisory Committee and provided with an explanation of performance expectations and a timetable for correction of deficiencies. If the student's performance does not make clear progress toward meeting the Department's expectations during the probationary quarter, he/she may be placed on final probation and subsequently dropped from the program. A documented explanation along with the Department's recommendations concerning the student's academic continuation in the graduate program is transmitted to the Dean of the Graduate School who will make a final decision regarding the student's status. The Dean's decision will be transmitted to the student by letter and placed in the student's permanent record. Re-admission to the Department of Pharmacy may be requested by petition to the Director of Graduate Programs.

COURSEWORK FINAL EXAMINATION POLICY

School of Pharmacy final examinations for courses are administered in accordance with the University of Washington Examination Schedule published in the Quarterly Time Schedules. The Dean may permit an instructor to change the time of a final examination upon prior application demonstrating good cause for such change. In such cases, the following guidelines shall be observed:

1. With the Dean's permission, a final examination may be posted or moved to an earlier time within the examination period if agreed to by all students and the instructor. Before approving the rescheduling of a final examination, the Dean shall obtain assurances that the change will not have an undue adverse impact on the students. The Dean shall notify the Registrar of the approval granted for the date of a final examination.
2. An instructor shall not schedule a final class examination before the beginning of finals week. An instructor shall not, except in very unusual circumstances, grant permission to individual students for an early examination. If the student is unable to take an examination on the

scheduled date, the procedure outlined in the following paragraph should be followed.

3. A student absent from any examination through sickness or other cause, judged by the instructor to be unavoidable, shall be given an opportunity to take a rescheduled examination or perform work judged by the instructor to be the equivalent.

If the instructor determines that neither alternative is feasible during the current quarter, the instructor may exempt the student from the requirement. Examples of unavoidable cause include death or serious illness in the immediate family, illness of the student and, provided previous notification is given, observance of regularly scheduled religious obligations, and might possibly include attendance at academic conferences or field trips, or participation in university-sponsored activities such as debating contests or athletic competition. Students are responsible for taking any number of examinations for which they are scheduled on a given day.

ACADEMIC GRIEVANCE PROCEDURE

Students who encounter academic problems, such as, but not limited to, faculty, departmental or school policies affecting individual student prerogatives, deviations from stated grading practices (but not individual grade challenges), unfair treatment and similar issues, may seek resolution of their complaints as described below. Students who believe they have been discriminated against on the basis of race, religion, color, sex, national origin, age, handicap, or status as a disabled veteran or Vietnam-era veteran should refer to the Human Rights Grievance Procedure contained in the University of Washington Operations Manual, D45.5.

Informal Conciliation

The student is encouraged first to attempt to resolve a grievance with the faculty or staff member(s) most directly concerned. If discussion with the faculty or staff member(s) concerned does not resolve the grievance, the student may request the chairperson of the department to conciliate. If this discussion does not result in resolution of the grievance, the student may request the Director of Academic and Student Programs to conciliate. If the student is dissatisfied with the informal conciliation, he or she may file a formal written complaint with the Dean.

Initiation of Formal Complaint

The School of Pharmacy Academic Grievance Committee is composed of three faculty members or administrators and two students. A senior faculty member is appointed by the Dean to serve as Chairperson of the Committee. The Dean shall consult with representative members of the student body for ad hoc nominations of student members. No person who has an obvious conflict of interest shall be appointed. Appointments of student members shall be from classes other than that of the complainant.

A formal grievance will be referred to the Chairperson of the School of Pharmacy Academic Grievance Committee who shall within five working days (hereafter, time limitations are stated in working days) of its receipt, notify the student and the faculty or staff concerned of the membership of the Committee. The student and the faculty or staff member concerned shall then have the right to exercise one preemptory challenge of Committee membership. If a challenge is made, the Dean shall designate another faculty or student member to replace the member challenged. All members of the Committee shall have the right to vote upon any matter that may come before it. No faculty member of the Committee shall be from the department of any of the parties to the grievance.

Hearing Procedures

When a formal complaint has been filed by a student, the Chairperson of the Academic Grievance Committee shall distribute a copy of the complaint to each faculty or academic staff person directly involved. The Chairperson shall establish a time and place for a hearing to be held within 5 days from the date of final determination of the Committee membership, unless for good reason stated in writing to the complainant and other concerned parties, the Chairperson schedules the hearing for a later specified date. The Chairperson shall announce the time and place of the hearing to the student, the members of the faculty and staff involved, the Dean, the chairperson of the department and all other prospective witnesses. A list of the persons notified will be given to the student and the other individuals directly involved.

Hearings will be conducted in closed session except when and to the extent mutually agreed upon by the student and faculty or staff involved. All parties may present evidence and testimony necessary either to establish or refute the alleged grievance. Only evidence presented at the hearing will be considered in determining the adequate summary of the proceedings shall be kept and shall include, as a minimum requirement, a tape recording of the proceedings. Such summary shall be retained by the Dean until the student graduates to insure

adequate review, if requested. Upon graduation the summary shall be destroyed.

Within 5 days after the hearing adjourns, the panel shall present to the Dean its report, including findings, conclusions and recommendations for action. The Committee shall reach its findings and recommendations by a majority vote of all the members. Dissenting opinions, if desired, may be presented with the majority report. The Dean, within 5 days after receipt of the Committee report, shall issue his decision as to the action to be taken on the grievance. The Dean's decision shall include an evaluation of the validity of the grievance and a statement of the action to be taken. Copies of the decision shall be transmitted to the student, the faculty and staff member(s), their chairperson, and the Grievance Committee.

The decision of the Dean shall become final at the close of the seventh day after issuance, unless the student or any other party directly involved files a written request for consideration of the findings by the Provost

Appeal Procedure

When a request for reconsideration has been received, the Dean shall transmit to the Provost a copy of the decision issued by him, together with the documentation, transcripts or tape recordings of testimony and other information relevant to the grievance.

The Provost shall examine the record and determine that either:

1. There are no procedural irregularities and the decision is fair, in which case he will reject the request thereby making the decision of the Dean immediately final; or
2. The record reflects some basis for reconsideration, in which case he will remand the matter to the Dean for appropriate action.

The Provost shall notify the student and the Dean of his finding within 10 days after receipt of the student's request.

In support of the high value placed on academic honesty and professional integrity, acts of misconduct will not be tolerated. Students are required to honor the obligations described in [WAC 478-120-020](#) and [WAC 478-120-024](#). They are also expected to report incidents of misconduct to the appropriate instructor, Department Chair or the Associate Dean for Assessment.

University of Washington Student Conduct Code

[The Student Conduct Code](#) for the University of Washington and the website of the [Office of Community Standards and Student Conduct \(CSCC\)](#) describe the rights and obligations of students with regard to appropriate conduct and disciplinary procedures in the event of a breach of conduct. Faculty, students, staff, and administrators should be familiar with the entire contents of the [UW Student Conduct Code](#), the basis on which the School of Pharmacy's Policies and Procedures were developed. Here are excerpts:

From the [Student Conduct Code](#) – 5.B. Standards of Conduct:

Admission to the University carries with it the presumption that students will conduct themselves as responsible members of the academic community. As a condition of enrollment, all students assume responsibility to observe standards of conduct that will contribute to the pursuit of academic goals and to the welfare of the academic community. That responsibility includes, but is not limited to:

- Practicing high standards of academic and professional honesty and integrity;

- Respecting the rights, privileges and property of others;
- Refraining from any conduct that would substantially disrupt or materially interfere with university operations;
- Refraining from any conduct that would cause harm to or endanger the health, safety, or welfare of other persons; and
- Complying with the rules, regulations, procedures, policies, standards of conduct, and orders of the university and its schools, colleges, departments, units, and programs.

From the Student Conduct Code – 5.D. Jurisdiction of the University:

The university may also hold students accountable under this conduct code for off campus misconduct (i.e., misconduct that does not occur on university premises or in the context of a university-sponsored event or activity) that the university reasonably determines adversely affects a university interest.

Prohibited Conduct

Based on [WAC 478-120-024](#), specific instances of misconduct include, but are not limited to:

Abuse of others and abuse of the student conduct process

Academic misconduct such as:

Cheating may be defined as the use of unauthorized assistance in taking quizzes, tests, or examinations; or the acquisition, use, or distribution of unpublished materials created by another student without the express permission of the original author(s). Examples of cheating may include:

- Copying the work of another student during an examination or other academic exercise, or permitting another student to copy one's work
- Completing an academic exercise (such as taking an examination or writing a paper) for another student or allowing another student to complete one's assigned academic exercise
- Possessing unauthorized notes, study sheets or other materials during an examination or other academic exercise
- Collaborating with another student during an academic exercise without the instructor's consent
- Asking for or receiving questions or answers to an examination from a student who has taken the same exam you are about to take
- Altering graded work and submitting it for reevaluation

Falsification, which is the intentional use or submission of falsified data, records, or other information including, but not limited to, records of internship or practicum experiences or attendance at any required event(s). Falsification also includes falsifying scientific and/or scholarly research.

Plagiarism, which is the submission or presentation of someone else's words, composition, research, or expressed ideas, whether published or unpublished, without attribution. Examples of plagiarism may include:

- The use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment
- The unacknowledged use of materials prepared by another person or acquired from an entity engaging in the selling of term papers or other academic materials
- Fabricating or inventing sources

Prohibited collaboration

Engaging in behavior specifically prohibited by an instructor in the course of class instruction or in a course syllabus.

Multiple submissions of the same work in separate courses without the express permission of the instructor.

Taking deliberate action to destroy or damage another's academic work in order to gain an advantage for oneself or another.

The recording of instructional content without the express permission of the instructor, and/or the dissemination or use of such unauthorized records.

Unauthorized possession or disposition of academic materials may include:

- Selling or purchasing examinations or other academic work
- Taking another student's academic work without permission
- Possessing examinations or other assignments not formally released by the instructor
- Submitting the same paper for two different classes without specific authorization

Disruptive behavior may include:

- Interfering with a student's right to hear an instructor or speaker
- Interfering with a student's right or ability to complete an academic exercise in an appropriately conducive environment
- Harassment of a member or visitor in the academic community
- Creating an impediment to the conduct of academic business

Disruptive behavior of using social networking, websites, the Internet or email may include:

- Reporting on or about official medical activities and/or patients' personal health information
- Requiring patients to participate in 'social networking' activities to influence or maintain the provider/patient relationship
- Posting of and/or the discussion of student grades, evaluations, course feedback, etc.
- Participating in activities that may compromise the provider/patient or faculty/student relationship
- Providing unsanctioned medical advice on social networking sites

Other Unprofessional or unethical behaviors may include:

- Violation of the standards of professional conduct during pharmacy practice experiences and at practice sites
- Other conduct unbecoming a pharmacy student
- Violation of the University of Washington and/or School of Pharmacy policies on substance abuse and the Washington law regarding health professions as defined in the uniform disciplinary act (RCE 130)
- Domestic violence
- Harassment or bullying
- Hazing
- Sexual assault, exploitation or harassment
- Violation of disciplinary sanctions or law

Faculty are encouraged at the beginning of the quarter to define actions in addition to the examples given above that would constitute misconduct in their classroom. Students should clarify any questions they have on assignments or class expectations with their instructors.

SCHOOL OF PHARMACY POLICY AND PROCEDURES ON MISCONDUCT

Questions on the School of Pharmacy's Student Misconduct Policy and Procedures should be directed to Stanley Weber (the School's Conduct Officer) who is the Dean's delegate for the School's Student Misconduct process.

Reporting Misconduct

Misconduct related to an Academic Exercise: If student misconduct is charged relative to an academic exercise, the faculty member responsible for the academic exercise during which the alleged misconduct occurred shall notify the School's Conduct Officer.

Note: If the student exhibits disorderly or disruptive behavior, the faculty member has a right to exclude the student from that class session ([WAC 478-121-125](#))

Misconduct not related to an Academic Exercise: If student misconduct is charged unrelated to an academic exercise, students or faculty members shall notify the School's Conduct Officer, who will either conduct an Investigative Interview or refer the report to Office of Community Standards and Student Conduct, whichever appropriate.

Matters outside the jurisdiction of the School of Pharmacy will be referred to the Chief Assessment Officer who will notify the Director, Student Conduct and Community Standards.

Report of Academic Misconduct and Behavioral Misconduct

When student misconduct is charged, the complainant shall notify the School's Conduct Officer who will investigate the matter, which may include holding an interview with the student who is charged with misconduct, and possibly the instructor, witnesses, or other individuals. The primary purpose of this investigative interview is to provide a face-to-face opportunity for the student to respond to allegations of misconduct before any disciplinary action is taken; a student waives the right to a hearing by failing to attend.

During the investigative interview, the Conduct Officer shall provide the student with the following information: 1) a description of the alleged misconduct and the reasons for the belief that the student may have engaged in misconduct, 2) the specific section(s) of the Standards of Academic and Professional Conduct, School of Pharmacy Admissions, Retention and Graduation Standards, and/or UW Student Conduct Code allegedly violated, 3) a review of possible sanctions that could be imposed including disciplinary warning, reprimand, restitution, disciplinary probation, forfeiture, suspension or dismissal from the School of Pharmacy and the University and, 4) rights the student possesses as described in the Student Conduct Code.

The Conduct Officer has the authority to enter into writing one of the following orders:

- An order exonerating the student or dismissing the disciplinary proceedings if it appears there has been no misconduct
- An initial order imposing a disciplinary sanction
- An order referring the case to the Community Standards and Student Conduct Office.

Based on the findings of the investigative interview, if it is determined that misconduct did occur, the Conduct Officer will make a written report to the Community Standards and Student Conduct Office that will include, a description of the alleged misconduct, a record of the proceedings and findings, and recommended action to be taken.

Within ten days of the conclusion of the hearing and any associated investigations, the School's Conduct Officer will provide the student with a written letter that includes a statement of the decision, the reason for the decision and information about appealing the decision. No unfavorable action may be taken until student has been given such notice and information.

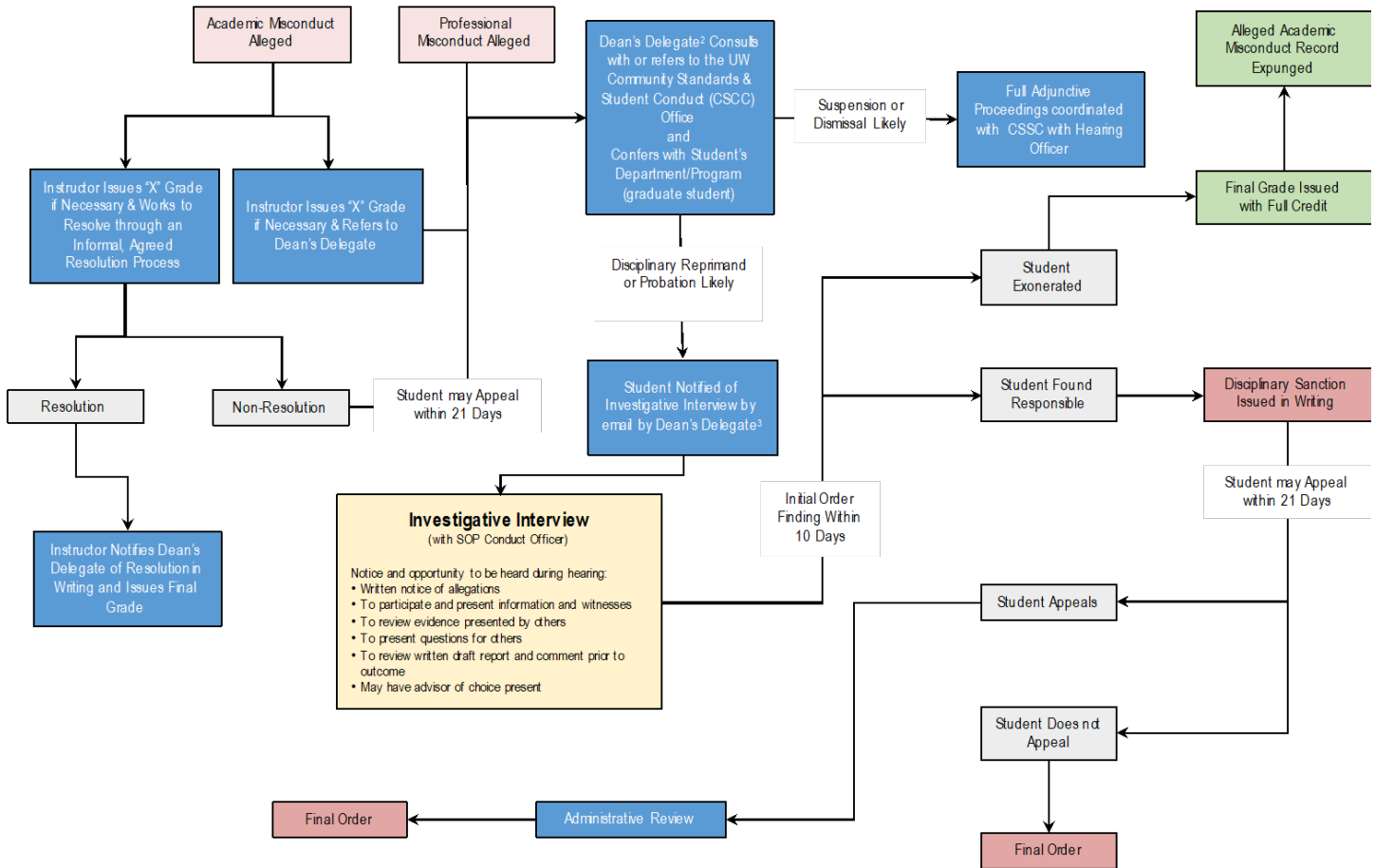
The student has the right to appeal any initial order. Students should consult the [Student Conduct Code](#) or contact the Community Standards and Student Conduct Office at (206) 685-6194 or the School's Conduct Officer for information on this process.

If the student chooses not to appeal, the initial order becomes the final order at the end of the appeal period set forth in the Student Conduct Code.

Disciplinary Records

Any final order resulting from a disciplinary proceeding shall become a part of the student's disciplinary record, unless the student is exonerated. All recording and maintenance of records regarding disciplinary hearings shall be retained by both the School's Conduct Officer and the Community Standards and Student Conduct Office and handled in accordance with procedures outlined in the Student Conduct Code.

Academic Misconduct Algorithm: Policy & Process¹
Effective August 18, 2017



¹ Algorithm is based on the Student Conduct Code for the University of Washington found at: <http://www.washington.edu/admin/rules/policies/SGP/SPCH209.html>
² The Dean's Delegate (Conduct Officer) is the individual with the authority to conduct the investigative interview and enter an initial order
³ <http://www.washington.edu/cssc/for-students/overview-of-the-student-conduct-process/>

Choosing Alternate Members

It is recognized that all steps will be conducted in a reasonable and timely manner. For this reason, Departmental and School executives may designate an appropriate member to act in their stead.

The Dean will appoint alternate members in the event the faculty or student member serving on the Academic and Professional Standards Misconduct Committee, the Associate Dean for Assessment and Accreditation, the Department Chair, or other principles are involved in the incident.

School of Pharmacy Misconduct Algorithm

Please see the [policy and procedures algorithm](#) for misconduct.

TRAVEL POLICY FOR GRADUATE STUDENTS AND POST-DOCTORAL FELLOWS

It is the CHOICE policy to support student travel when a student's research poster or podium presentation has been accepted by a professional organization for presentation within North America. CHOICE faculty strongly believes that dissemination of scholarly products is fundamental to the training of graduate and post-doctoral students. It is expected that students will exhaust all available means of obtaining travel support from other sources prior to seeking CHOICE student travel support including: 1) funds from research programs from which the abstract was generated, graduate school funds, and conference specific funds. Therefore, CHOICE funds should be considered a supplement rather than the sole source of funding. The specific details of the travel policy are listed below:

- Students must request funds well in advance of the intended conference and their request will be reviewed by the travel committee comprised of the Graduate Program Manager and two faculty members.
- Funds will be allocated by quarter with extra money in the first quarter to accommodate the larger volume of requests related to ISPOR.
- Allocation scheme:
 - Priority and additional funds will be allocated to students with abstracts accepted for podium presentations.
 - Remaining funds will be split evenly among students with abstracts accepted for poster presentation.
- Eligible travel expenses:
 - Lowest cost round trip coach class airfare to and from Seattle to the conference city
 - Double occupancy hotel (sharing a room with another student, if possible)
 - AirBnB type of rental accommodation for 3 or more students, if split rental would be less expensive than the conference hotel.
 - Reimbursement will be for actual business-related meal expenses only, and receipts are required. Meals will not be reimbursed for more than the GSA standard per diem for the city to which the student traveled.
 - Transportation to and from the conference hotel and the airport will be covered with receipt.
 - Conference registration at the "early bird" rate. Not to include social events.
 - Fees associated with submissions of abstracts, and/or costs of poster production.
- **Students are eligible to receive travel funds from the Higashi Family Endowment every other year.**
- Everyone must apply for available student funding via the target conference
- Everyone must apply for Grad School funding (The application must be submitted by the Graduate Program Advisor through MyGrad and this funding is also available every other year).
 - Up to \$300 for domestic airfare and \$500 for international airfare
 - <http://grad.uw.edu/graduate-student-funding/funding-information-for-departments/awards-and-funding-resources/graduate-student-conference-travel-awards/>
 - Applications are routed through CHOICE
- Students should notify the Graduate Program Advisor upon submission of abstracts

Once approved to receive funds, students will complete the Prior Travel Approval Form and submit to the Graduate Program Manager: <https://sop.washington.edu/wp-content/uploads/Travel-Prior-Approval-Request.pdf>.

Student International Travel Policy 2017

The UW Office of Global Affairs has announced a new policy regarding student international travel.

Please read about the policy and FAQs here:

<http://www.washington.edu/globalaffairs/global-travelers/student-international-travel-policy/>

In addition to other kinds of international travel, this policy affects graduate students traveling out of the United States to attend a research conference paid for on a sponsored program. It is designed to protect students in case they have a safety or health issue while they are out of the country.

Please click on the link above for more information. This policy outlines three important pre-departure requirements for all students traveling abroad for official academic purposes, including attending a research conference:

1. Register international travel with the Office of Global Affairs (OGA)
2. Purchase comprehensive medical and evacuation insurance while abroad (cost is \$1.74/day for up to 14 days), unless the student has insurance that has the same coverage
3. Request a waiver for travel to high risk destinations

Note that the cost of this insurance is an allowable charge on the sponsored award that is funding the travel costs, unless otherwise specifically disallowed by the sponsor, by policy or terms of the award. Of course, the sponsored award should not be charged for this insurance if the award is not funding the associated travel. For any questions not answered by the FAQs at the link above, please contact Nicholas Hill in the Office of Global Affairs: hilln6@uw.edu.

UW SUSPENDED OPERATION/INCLEMENT WEATHER

The UW President may declare a temporary suspension of any or all University operations due to an emergency situation that adversely affects University operations, public health, or the well-being and safety of employees and students. Events which might require suspending operations include, but are not limited to:

- Severe weather or natural disaster.
- Spread of a communicable disease.
- Fire or related hazard.
- Immediate threat to the safety of the campus community.
- Damage to or failure of UW infrastructure, equipment or mechanical systems.

When a decision to suspend operations has been made, information will be shared through the [UW Alert System](#) and on the [University of Washington Home Page](#). You can also call the UW Information Lines at 206-UWS-INFO (206-897-4636) or toll-free 1-866-897-4636.

Inclement Weather: <http://hr.uw.edu/policies/inclement-weather/>

UW Suspended operations policy: <https://hr.uw.edu/policies/suspended-operations/>

UW Alerts: Sign up for text message alerts: <http://www.washington.edu/safety/alert/>

FIRE ALARM PROCEDURE POLICY

In the event of a fire alarm sounding, all students should evacuate the building immediately using the nearest exit, unless there has been prior notification that the alarm is for test purposes only.

Students should be aware that it is a finable offense under the Seattle Fire Code to remain in the building during an alarm. The maximum amount of the fine is \$500 and/or 180 days in jail. .

Please remember that your safety takes priority above anything else. While it may not always be convenient to stop activities and evacuate during a fire alarm, it is necessary.

In the event of a fire, please follow the procedures below (from the UW Emergency Plan):

<https://www.washington.edu/uwem/plans-and-procedures/fire-and-building-evacuation/>

INDEMNIFICATION POLICY

https://oppe.pharmacy.washington.edu/PracticumSite/forms/Indemnification_Policy.pdf

POLICY ON SPECIAL ACCOMMODATIONS

<https://sop.washington.edu/pharmd/handbook/academic-professional-policies-procedures/equal-opportunity-special-accommodation-statements/>

LIBRARIES

The Health Sciences Library: <https://hsl.uw.edu/>

Suzzallo and Allen Libraries: <http://www.lib.washington.edu/suzzallo>

GRADUATE STUDY ROOM

The Department of Pharmacy provides the graduate students with a Graduate Study Room. This room has Wi-Fi internet access, a wireless duplex printer, a large projection screen and a small refrigerator, microwave and espresso machine. There are also 2 small conference rooms with individual access. This locked room will provide students with a convenient area to study, collect materials, and relax between classes. Each student will also have a mailbox in which to receive notices.

UW Poster and Photo

The University of Washington maintains an excellent service for various educational resources ranging from photographic development to printing large scale posters. For a fee you can have a computer generated presentation printed to slides, overheads, or on posters. UW Poster and Photo can provide valuable assistance on the production of graphics and illustrations, and maintains a digital imaging service. UW Poster and Photo is located in Room T-271 in the Health Sciences Center. <https://hsasf.hsa.washington.edu/visual-design/>

SPORTS AND RECREATION FACILITIES

A wide variety of sports and recreation facilities are available to students at a small cost. Swimming, weight training, and exercise equipment may be found at the IMA building, along with a variety of team sports (543-4590). Students may also want to try renting a canoe, kayak, or sailboat at the Waterfront Activities Center (543-9433) or hitting a few golf balls at the driving range: <http://www.washington.edu/ima/>

SCHOOL OF PHARMACY DIRECTORY:

A web directory of all School of Pharmacy staff, faculty, and graduate students is maintained here: <https://sop.washington.edu/about/people-directory/>. The most up-to-date personnel information can be found online, but we have highlighted the main administrative offices below and their leadership.

OFFICE OF THE DEAN

Leadership:

Sean Sullivan, Professor & Dean of the School of Pharmacy (sdsull@uw.edu)
 Kelly Campbell, Assistant Dean, Finance and Administration (kellyjc@uw.edu)
 Claire Forster, Associate Dean, Advancement and Corporate Relations (clbrown@uw.edu)
 Peggy Odegaard, Associate Dean, Professional Pharmacy Education (podegard@uw.edu)
 Andy Stergachis, Associate Dean, Research, Graduate Programs & New Initiatives (stergach@uw.edu)

The Dean's Office is located in room H-364 of the Health Sciences Building. Students wishing to meet with the Dean should contact Trish Respalie (206) 543-5050 respalie@uw.edu for an appointment.

Full personnel list: <https://sop.washington.edu/about/office-of-the-dean/>

OFFICE OF PROFESSIONAL PHARMACY EDUCATION

Peggy Odegaard, Associate Dean, Professional Pharmacy Education (podegard@uw.edu)

Terri O'Sullivan, Director of Experiential Education, Advanced Practice (terrio@uw.edu)

The Office of Professional Pharmacy Education coordinates the School's professional experience programs (practicums), organizes career day activities, provides service to over 350 practitioner clinical and affiliate faculty members, and advises the Dean on issues relating to professional practice.

STUDENT SERVICES

Andrew Brusletten, Assistant Dean, Student Affairs (abuslet@uw.edu)
 Caitlin Blomquist, Director of Advising and Student Success (cmb23@uw.edu)
 Mike Spielman, Director of Admissions and Recruiting (mspiel@uw.edu)
 Bailey Clem, Associate Director of Admissions and Recruitment (bclem@uw.edu)

Located in room H-362 of the Health, Sciences Building, the Office of Student Services is responsible for the provision of student services and advising, coordination of the School curriculum, and conducting Pharm.D. program admissions.

OFFICE OF ADVANCEMENT AND ALUMNI RELATIONS

Claire Forster, Associate Dean, Advancement and Corporate Relations (clbrown@uw.edu)
 Danielle Shubat, Assistant Director of Advancement (dshubat@uw.edu)
 Scott Braswell, Director of Marketing and Communications (braswels@uw.edu)
 Maddie Kroupa, Advancement Services Officer (mkroupa@uw.edu)

The Office of Advancement and Alumni Relations is responsible for fundraising (including student scholarships), the Pharmacy Alumni Association (PAA), and publications and other external communications for the School of Pharmacy. This Office is located in the Dean's Office.

SCHOOL OF PHARMACY: ACADEMIC DEPARTMENTS

MEDICINAL CHEMISTRY

Bill Atkins, Ph.D., Chair

The Department of Medicinal Chemistry seeks to provide an understanding of the biological effects of drugs at the molecular level. Topics addressed in the professional program through courses offered by the Department include background training in the mechanisms of drug action and drug metabolism, and structure-activity relationships.

Research activities of department faculty include studies on various aspects of drug metabolism, mechanisms of drug action and drug metabolism, biophysical aspects of metabolic enzyme systems, microbial metabolism, structure-activity relationships, and biomedical mass spectrometry and aspects of protein folding and protein engineering.

Department faculty offices and laboratories are located on floors -1 and 1 of the H-Wing in the Health Sciences Center.

Graduate Program

The Department of Medicinal Chemistry offers a program of graduate study leading primarily to the degree of Doctor of Philosophy. Occasionally students complete the M.S. degree. The primary areas of research training of the Department of Medicinal Chemistry are in chemical and molecular aspects of drug action and of drug metabolism including both laboratory experiments and theoretical work. Studies in the field include, for example, the relationship between chemical structure and biologic effect, function and toxicity, delineation of the metabolic spectrum of drugs or foreign substances in man and animals, and the factors (environment, disease, etc.) that affect this spectrum of metabolites; the study of the nature and catalytic properties of the enzymes responsible for metabolic reactions and the molecular mechanisms by which such reactions occur. Theoretical studies on conformational aspects of important enzymes involved in these processes are under study.

4. PHARMACEUTICS

Nina Isoherranen, Ph.D., Professor and Milo Gibaldi Endowed Chair, Pharmaceutics

Pharmaceutics refers to the study of the relationship between drug dosage forms and clinical response. The curriculum for the Pharm.D. program includes required courses addressing three main subjects within Pharmaceutics: physiochemical aspects of dosage forms; biopharmaceutics (performance of drug delivery systems); and clinical pharmacokinetics (the kinetics of drug absorption, distribution, and elimination). In addition, the Department offers elective courses addressing such topics as drug interactions and pharmaceutical biotechnology. Department Faculty offices and laboratories are located on the second floor of the H-Wing in the Health Sciences Center.

The research program of the department includes six NIH-funded laboratories addressing a variety of fundamental and clinical problems pertaining to drug transport, metabolism, and toxicity associated with several diseases (AIDS, cystic fibrosis, leukemia, epilepsy, pain management, transplantation). Most projects involve collaborative arrangements with investigators from other departments in the University or at the Fred Hutchinson Cancer Research Center. The collaborative relationship of Pharmaceutics faculty with colleagues in the Department of Medicinal Chemistry in the field of drug metabolism has received worldwide recognition.

Graduate Program

The Department of Pharmaceutics offers programs of graduate study leading to the degrees of Master of Science and Doctor of Philosophy. The program provides research training in the fundamental aspects of drug disposition, drug delivery, and drug action in animals and man. Drug disposition includes the phenomena of absorption, distribution, and elimination. Pharmacokinetics is the study of time course of these processes and the time course of pharmacological effects. Drug delivery includes targeting of drugs to tissues or specific cells to improve therapeutic effect. These areas of research have a wide range of applications, particularly in the pharmacological characterization of new drug molecules in pharmaceutical development. Graduates of this program possess expertise in a variety of analytical techniques and the elaboration of mathematical models to describe drug disposition and pharmacological processes.

5. PHARMACY

H. Steve White, PhD, Chair

The mission of the Department of Pharmacy is to prepare pharmacists to provide optimal pharmaceutical care, and to prepare graduate and postgraduate students to provide leadership in scholarship and practice. The Department generates and disseminates knowledge to assure the safe, effective, and cost-efficient use of medications.

Research activities of Department faculty take many forms, ranging from randomized clinical trials of experimental drugs to the evaluation of costs and health benefits of pharmaceuticals and expanded professional services. The Department of Pharmacy faculty conduct research in pharmaceutical outcomes research, pharmacotherapy and clinical pharmacokinetics. Last year faculty received over \$1.7 million in grants from the private sector and governmental agencies. Studies are underway on chronic disease management practices in such areas as pulmonary disease, mental illness, cardiovascular disease, and infectious disease. Faculty also study the safety and cost-effectiveness of drugs, women's health issues, and the effects and financing of pharmaceutical care.

The Department also accepts responsibility for assisting in improving the present level of pharmacy practice. Activities in this area include participation in continuing education activities, dissemination of information concerning the advances or innovations in pharmacy, and development of public or community education programs to inform the public of services available from pharmacists.

Department faculty offices are located on the third floor of the H-wing in the Health Sciences building. Faculty members also conduct teaching, research, and service programs at affiliated institutions, including University of Washington Medical Center, Harborview Medical Center, Group Health Cooperative of Puget Sound, Veterans Affairs Puget Sound Health Care System, Regence Washington Health, and Children's Hospital and Medical Center. In addition, research and teaching programs are conducted at Rubenstein Memorial Pharmacy, the Hearthstone Retirement Center, and numerous community hospitals and pharmacies. Over 400 clinical and affiliate faculty also hold appointments in the Department.

School of Pharmacy Faculty

Please take the time to explore the School of Pharmacy website: <https://sop.washington.edu/> and familiarize yourself with the School's leadership, departments and faculty.

Clinical and Affiliate Faculty

In addition to the School of Pharmacy's full and part-time faculty, a large number of practicing pharmacists contribute to the School's academic programs. These individuals are members of our affiliate and clinical faculty. Affiliate faculty serve in numerous vital capacities, including lecturing in selected courses and acting as preceptors for students enrolled in practicums. Over 400 pharmacists throughout the Pacific Northwest are members of our clinical faculty, representing a variety of pharmacy practice settings such as community, hospital, nursing home, government and industry. Information on the names, addresses and practice settings of clinical faculty may be obtained from the Office of Professional Programs (H-364 Health Sciences Building, 685-8738).

GRADUATE STUDENT RESOURCES

UW Central Administrative Support

- [Graduate Enrollment and Management Services \(GEMS\)](#)
- [Health Sciences Academic Services & Facilities](#)
- [International Student Services \(ISS\)](#)
- [Office of the University Registrar](#)
- [Student Fiscal Services \(SFS\)](#)
- [Office of Student Financial Aid](#)
- [Student Legal Services](#)

Graduate Student Appointment Information

- [Graduate Appointee Insurance Plan \(GAIP\)](#)
- [Instructional Support and Programs for TAs and ITAs](#)
- [Office of Planning and Budgeting – Graduate Tuition Dashboards](#)
- [Overview of Assistantships](#)
- [RA/TA Salary Schedule](#)

Graduate School Resources

- [Degree Requirements](#)
- [Graduation Checklist- Thesis Master's Students](#)
- [Graduation Checklist- Doctoral Students](#)
- [Master's Degree Request](#)
- [Policies and Procedures](#)
- [Memo 46: Graduate Degree Requirements](#)
- [Memo 13: Supervisory Committee for Graduate Students](#)
- [Memo 9: On-Leave Policy to Maintain Graduate Student Status](#)
- [Preparing to Graduate](#)
- [Thesis and Dissertation Information](#)
- [Thesis and Dissertation Formatting Guidelines](#)

Funding Opportunities

- [American Foundation for Pharmaceutical Education](#)
- [Biobehavioral Cancer Prevention and Control Training Program](#)
- [Diversity Fellowships & Awards](#)
- [GFIS Blog](#)
- [Graduate School Fellowships](#)
- [PhRMA Foundation](#)
- [Tips on Applying for Fellowships!](#)
- [UW Grants and Funding Information Service \(GFIS\)](#)

Academic, Self Care, and Community Resources

- [Core Programs, the Office of Graduate Student Affairs in The Graduate School](#)
- [Disability Resources for Students \(DRS\)](#)
- [First Generation Graduate Students](#)
- [GO-MAP: Supporting Graduate Students of Color at the University of Washington](#)
- [Hall Health Center](#)

- [Health & Wellness](#)
- [Housing and Food Services \(HFS\)](#)
- [International Graduate Students](#)
- [FIUTS – Foundation for International Understanding Through Students](#)
- [FIUTS International Student Handbook](#)
- [International Graduate Student Advisory Board](#)
- [Mentoring Support](#)
- [Mentoring Guides for Students](#)
- [Mentor Memos](#)
- [Office of Ombud](#)
- [Office of Student Veteran Life](#)
- [SafeCampus](#)
- [UW Counseling Center](#)
- [UW Libraries](#)
 - [Citation Management Tools and Assistance;](#)
 - [Data Management Consultation;](#)
 - [Research Works;](#)
 - [Scholarly Publishing & Open Access;](#)
 - [Research Commons \(Writing Consultations for Graduate Students\);](#)
 - [Interlibrary Loan & Document Delivery Services](#)
- [UW Recreation](#)
- [UW Women’s Center](#)

APPENDIX A: List of Suggested Electives

Below is a selection of available electives appropriate for areas of specialization.

This list is not all-inclusive. Students are encouraged to check the websites of classes in these departments and in other listings; and then to work with their mentor to formulate a plan to optimize selections to fit interests.

Bold = highly recommended as an elective

BIOMEDICAL & HEALTH INFORMATICS

MEBI 530: Medical Informatics (3)

MEBI 533: Public Health & Informatics (3)

MEBI 534: Biology & Informaticists (3)

MEBI 552: Clinical Decision Support (3)

BIOSTATISTICS/STATISTICS

BIOST 509: Intro to R for Health Sciences (2)

BIOST 516: Statistical Methods in Genetic Epidemiology (3)

BIOST 529: Sample Survey Techniques (3)

BIOSTAT 532: Research Ethics in the Data Sciences (2)

BIOST 536: Categorical Data Analysis (4)

BIOST 540: Longitudinal & Multilevel Data Analysis (3)

BIOST 544: Introduction to Biomedical Data (4)

BIOST 546: Machine Learning and Big Data (3)

CS&SS 508: Introduction to R for Social Scientists (1)

CS&SS 510: Maximum Likelihood Methods for the Social Sciences (5)

CS&SS 526: Structural Equation Models for the Social Sciences (3)

CS&SS 529: Sample Survey Techniques (3)

CS&SS 536: Analysis of Categorical and Count Data (3)

CS&SS 560: Hierarchical Modeling for the Social Sciences (4)

CS&SS 564: Bayesian Statistics for the Social Sciences (4)

CS&SS 566: Causal Modeling (4)

CS&SS 567: Statistical Analysis of Social Networks (4)

CS&SS 569: Visualizing Data (4)

CS&SS 589: Multivariate Data Analysis for the Social Sciences (3)

STAT 516, 517, 518: Stochastic Modeling of Scientific Data (3,3,3)

STAT 519: Time Series Analysis (3)

STAT 542: Multivariate Analysis (3)

COMPUTER SCIENCE AND ENGINEERING

CSE 142: Computer Programming I (4)

CSE 143: Computer Programming II (5)

CSE 160: Data Programming (4)

CSE 512: Data Visualization (4)

ECONOMICS, ECONOMETRICS AND COST-EFFECTIVENESS

IND E 250 – Healthcare Modeling and Decision Making

ECON 400: Advanced Microeconomics (5)

ECON 450: Public Finance: Expenditure Policy (5)

ECON 454: Cost-Benefit Analysis (5)

ECON 500: Microeconomic Analysis I (4)

ECON 518: Contract Theory (3)
 ECON 534: Empirical Industrial Organization (3)
 ECON 580: Econometrics I: Introduction to Mathematical Statistics (4)
 ECON 581: Econometrics II (4)
 ECON 591: Microeconomics of Development (3)
 ECON 592: Development Policy (3)
 ECON 594: Economic Growth (3)
 ECON 595: Growth and Inequality(3)
 PPM 506: Advanced Microeconomics for Policy Analysis (4)
 PPM 512: Data Analysis Practicum (4)
 HSERV 587: Health Policy Economics (3)

EPIDEMIOLOGY

EPI 510: Epidemiologic Data Analysis (3)
 EPI 514: Application of Epidemiologic Methods (5)
EPI 515: Advanced Epidemiological Methods I (3)
 EPI 516: Advanced Epidemiologic Methods II (4)
 EPI 517/PHG 511: Genetic Epidemiology (3)
 EPI 520: Epidemiology of Infectious Diseases (3)
 EPI 524: Cancer: Epidemiology and Biology (3)
 EPI 529: Emerging Infections of International Public Health Importance (3-)
 EPI 530: AIDS: A Multidisciplinary Approach (2)
 EPI 542: Clinical Epidemiology (2)
 EPI 546: Psychiatric Epidemiology (3)
 EPI 548: Research Methods for Social & Contextual Determinants of Health (3)
 EPI 570: Occupational & Environmental Epidemiology (2)
 EPI 573: Methods in Using Biological Measurements (3)
 EPI 582: Design and Analytic Strategies to Enhance the Validity of Epidemiologic Studies (2)
 EPI 583: Epidemiology Seminar (1, max. 12)
EPI 588: Preparing, Writing, and Critiquing Scientific Research Proposals (2-3)
 EPI 591: Current Literature in Epidemiology (1, max. 15)

EVALUATION SCIENCES

HSERV 527: Survey Research Methods (4)
 BIOST 529: Sample Survey Techniques (3)
 SOC WL 590: Topics in Advanced Research Methods (3)
 EDPSY 588: Survey Research Methodology & Theory (3)
 EDPSY 592: Advanced Educational Measurements (3)
 EDPSY 595: Item Response Theory Models of Testing (3)
 GH 533: Survey Research Methods (4)

GLOBAL HEALTH

GH 531: Research & Evaluation Methods in Global Health (3/4)
 GH 533: Survey Research Methods (4)
 GH 543: Global Health Pharmacy: Medicines, Practice, & Policy (2)

HEALTH SERVICES

HSERV 509: Public Health & Informatics (3)

HSERV 512: Health Systems & Policy (3)

HSERV 513: Health Policy Research (3)

HSERV 514: Social Determinants of Population Health & Health Disparities (3)

HSERV 518: Social & Ethical Issues (2-4, max. 4)

HSERV 521: Advanced Qualitative Methods in Anthropology & Public Health (5)

HSERV 522: Health Program Evaluation (1-5, max. 5)

HSERV 527: Survey Research Methods (4)

HSERV 528: Critically Appraising & Applying Evidence in Healthcare (3)

HSERV 529: Intro to Systematic Reviews & Meta-Analysis of Evidence (3)

HSERV 551: Public Health Law (2)

HSERV 552: Health Policy Development (3-)

HSERV 575: Cancer Prevention & Control (3)

HSERV 578: Grant Writing (3)

HSERV 589: Community Based Participatory Research & Health (3)

HEALTH MANAGEMENT

HSMGMT 500: Risk & Insurance Seminar (3)

HSMGMT 501: Epidemiology/Critical Evidence Appraisal (2-4, max. 4)

HUMAN CENTERED DESIGN AND ENGINEERING

HCDE 511: Information Visualization (4)

INFORMATION SCHOOL

IMT 543: Relational Database Management Systems (3)

METHODS

BIOST 524: Design of Medical Studies (3)

HSERV 529: Introduction to Systematic Reviews and Meta-analysis of Evidence (3)

PHARM 540: Systematic Reviews and Meta-analysis (2)

PROGRAMMING**BIOSTATS 509: Introduction to R**

FISH 552/553: Intro and Advanced R Programming

INFX 501: Concepts in Algorithmic Thinking for Information (1)

INFX 502: Database Concepts for Information Professionals (1)

PUBLIC AFFAIRS; PUBLIC POLICY & MANAGEMENT

PPM 506: Advanced Microeconomics for Policy Analysis (4)

PUBLIC HEALTH GENETICS

PHG 512: Legal, Ethical, and Social Issues in Public Health Genetics (3)

PHG 580: Interactive Seminar (1, max. 30)

QUALITATIVE METHODS

HSERV 590: Qualitative Research Methods in Public Health (3)

HSERV 521: Advanced Qualitative Methods in Anthropology & Public Health (3)

GEOG 426: Qualitative Methods in Geography (4)

EDPSY 586, 587: Qualitative Methods of Educational Research (5)



Individual Development Plan (IDP)

PhD Program in Pharmaceutical Outcomes Research and Policy
The CHOICE Institute, University of Washington

Purpose of the Individual Development Plan

The purpose of an Individual Development Plan (IDP) is to prepare you for your future career after you graduate from the CHOICE PhD program. It is important that you think carefully about your individual career goals and the skills you need to be successful in that career. It is quite likely that your career success will require a much wider range of skills than the ability to design and perform research. Your mentor and other resources at UW and affiliated institutions will be helpful, but you must take primary responsibility for your career preparation.

Outline of the IDP Process

The development, implementation, and revision of IDPs require a series of steps to be conducted by graduate students and their mentors. These steps are an interactive effort, and so both the student and the mentor must participate fully in the process. Appendix A offers guidance and resources for developing your IDP. The UW Graduate [Mentoring Page](#) is also a great resource.

	For Graduate Students	For Mentors
Step 1	Conduct self-assessment, a tool for you and your mentor(s) to identify your career goals and competencies to reach your goals	
Step 2	Write an IDP, including your PhD Progress Table and PhD Timeline. Share with mentor(s) and revise	Review IDP and help revise
Step 3	Implement the IDP and revise as needed	Establish regular progress review
Step 4	Identify and explore potential career paths with mentor(s). Assess how your knowledge and skills match the competencies required by your chosen career(s), and revise your IDP to prioritize developmental areas that you will need for your career(s).	Discuss opportunities with mentee

Once you have drafted your IDP, meet with your mentor(s) to discuss the draft, and schedule regular meetings to review and assess your progress. Make use of as many mentors as you find helpful—you will find that most people are very willing to help to guide you in understanding your goals and defining what mentoring you need.

Your IDP should be considered a living document that will evolve over time as you move through your training. You will be expected to update it in consultation with your mentor annually, and before it is reviewed annually by the CHOICE Faculty.

Individual Development Plan (IDP)

Please complete your IDP (with your updated CV, Progress Table, and Timeline) and review with your mentor/chair. Obtain their signature and sign it yourself and submit electronically to Marina Gano, mcgano@uw.edu

Review Schedule:

Fall Faculty Meeting: 3rd years and above

Winter Faculty Meeting: 2nd years

Spring Faculty Meeting: 1st years (including MS fellows)

Student: _____ Date: _____

Mentor/Chair: _____

Thesis or Dissertation Topic:

Year Entered Program: _____ Estimated month/year of graduation: _____

Individual Development Plan (IDP)

1. Self-Assessment

The self-assessment will help you to gauge your skills, strengths and areas that need further development. Some of the skills and strengths that are relevant to career decisions in research include: technical abilities (breadth and depth of expertise), writing skills, oral communication skills, organizational ability, leadership, self-motivation, decision-making, creativity, work ethic, problem solving abilities, knowledge (depth and breadth), perseverance, and ability/desire to take risks.

Take a realistic look at your current abilities. This is a critical part of career planning. Involve your mentors, faculty, colleagues, family and friends in the assessment process by asking them to identify your strengths and the areas you need to develop. There are no word limits in the IDP form. *Please review the Appendix Self-Assessment Guide to initiate the self-assessment process.*

a. Describe/List Your Existing Strengths:

b. Describe/List Areas for Further Development:

3. Academic Goals

After completing the self-assessment, defining goals (academic and career) begins with articulating your interest(s), based on your strengths and the jobs that you might want in different employment sectors (e.g. academia, industry, non-profit, government, or other research/teaching-related areas). Think about where you want to be in your career.

When completing each section, please indicate how sure or unsure you are about your future goals and objectives. If you can't decide on your preferred career path now, define what you need to know to make the choice, how you will obtain that information, and the time period over which you will work on determining your path. Execute that plan and then develop the actual IDP as your specific career goals become better defined.

- a. **What are your academic goals for the upcoming year?** (short-term objectives; be specific):

- b. **Courses you intend to complete in the upcoming academic year (course name and number):**

Core Courses:

Elective Courses:

c. What are your plans regarding the preliminary exams, dissertation proposal defense, and dissertation defense?

1. Preliminary Examinations:

- a. Completed (give date)_____
- b. Aim to complete this coming academic year
- c. Aim to complete in future academic years

2. Dissertation Proposal Defense (General Exam):

- a. Completed (give date)_____
- b. Aim to complete this coming academic year
- c. Aim to complete in future academic years

3. Dissertation Defense (Final Exam):

- a. Aim to complete this coming academic year
- b. Aim to complete in future academic years

d. If you have established your dissertation committee, list the members here:

--

e. Biomedical Research Integrity Program (BRI)

Which 5 out of 5 lectures did you complete to satisfy the BRI requirement stated in the Graduate Student Handbook? You do not need to attend all 5 in one summer. Check the topics completed to date, and the quarter of completion.

Check if completed	Topic	Quarter completed
<input type="checkbox"/>	Data Acquisition, Management, Sharing, and Ownership	
<input type="checkbox"/>	Research Misconduct	
<input type="checkbox"/>	Responsible Authorship and Publication	
<input type="checkbox"/>	Conflict of Interest	
<input type="checkbox"/>	Peer Review	

4. Career Goals

a. What are your broader career goals for the upcoming year? (short-term objectives; be specific)

--

b. **What do you want to be doing within 2-5 years after you graduate?** (medium-term objectives)

c. **What do you want to be doing in 10 years?** (long-term objectives)

d. **What is your overall career goal?** (as of now – you can change your mind later)

5. Acquiring Knowledge and Research Skills

Once you have an idea of your strengths, the gaps in your knowledge or experience, and your career goals, think of ways to fill those gaps during your doctoral program. The remaining sections of the IDP pose questions about what skills you will need to be successful in your career and how you will develop those skills and gain essential experience. You should involve your mentor and committee members in helping you define what you need and in addressing those needs.

- a. **Briefly describe your research projects in the past 12 months** (accomplishments, products, traineeships, research assistantships, or other jobs and detailed tasks, which can include classroom papers/projects, PHARM 600 independent studies, dissertation plans). Please include human subjects' information for each project, as relevant. If you have no projects, please state so.

- b. **Briefly describe your research goals for the next 12 months** (products, traineeships, research assistantships, or other jobs and detailed tasks, which can include classroom papers/projects, PHARM 600 independent studies dissertation plans). Please include human subjects' information for each project, as relevant. If you have no projects, please state so.

- c. **What specific skills or expertise** (methods, techniques, knowledge, specific courses, etc.) have you already acquired during the course of your project(s)?

- d. What specific skills or expertise (methods, techniques, knowledge, specific courses, etc.) do you need to learn to accomplish this project and/or your career goals?

6. Development of Career Skills (Professional Development)

Once you have an idea of your strengths, the gaps in your knowledge or experience, and your career goals, think of career skills (professional development) you wish to gain during your doctoral program.

- a. **Communication skills:** List progress you have made in developing communication skills and specific areas to improve in the future (e.g., skills in grant writing, manuscript writing, poster and oral presentations, science writing for the public, networking)

- b. **Teaching experience (if a career goal):** List previous, current and future specific teaching assistantships and other teaching opportunities, including formal or informal training in didactics

- c. **Mentoring (if a career goal):** List previous, current and future mentoring opportunities, informal and formal.

- d. Leadership, time management, research management, etc.:** List accomplishments and future areas for improvement in these and other relevant areas.

6. Setting Goals for Progress

- a. Oral and poster presentations:** List oral and poster presentations (e.g. works-in-progress, seminar presentations, local, regional, national, and international presentations, abstracts submitted) given/planned in the past 12 months and next 6 months. Include conferences you attended, noting titles and dates of presentations & posters on your CV. Describe how you will fund travel for future conferences.

- b. Publications:** List all publications since entering the PhD Program, including those that you are preparing for submission to journals, and the status of your submitted papers (i.e., In Progress; Submitted; Accepted/In Press; Published since entering the PhD Program), both below and on your CV.

- c. Funding needs and applications:** Describe future funding needs and list specific sources of previous and potential funding and type of award, with expected submission dates.

- d. Progress toward career goals in other areas:** Please add additional information as relevant.

7. Moving to the Next Step in Your Career

With your career goals in mind, reserve time and effort to develop professional competencies for the job search process that may increase the chances of securing a job offer of your choice in a timely manner. Take time to identify areas you need to improve and the resources available within and outside of the University.

- a. Key contacts to make to explore career options and investigate leads:**

- b. Potential sources for letters of reference (cultivate these relationships early):**

c. Development of CV/resume, research summary, etc.:

d. Other steps to take (e.g., tips from mentor(s) for moving to the next step; other professional development, informational interviews, networking/attending conferences):

8. Student Evaluation of Program

a. Describe your interactions with your mentor. Specify ways that your mentor helped you achieve your goals for the program. Note areas that might be improved in your relationship with your mentor.

b. Identify areas in the program that you think need improvement. Please be specific.

PhD Program Timeline

Please work with your faculty advisor to complete this entire table (with dates). Note: these tasks are not necessarily in chronological order, check with your advisor to confirm the appropriate time to complete each step.

Task	Date	Year in Program	Status: Planned, In Progress, or Completed
Enroll			
Completed all CHOICE Core Courses			
Pass Preliminary Exam - Cost			
Pass Preliminary Exam - Outcomes			
Pass Preliminary Exam - Biostatistics			
Pass Preliminary Exam – Epi & Pharmacoepi			
Pass Preliminary Exam – Health Econ & Policy			
Complete all Elective Courses			
Complete 18 credits of Pharm 600			
Complete CHOICE Seminar each quarter enrolled			
Form Doctoral Dissertation Committee			
Write Short Dissertation Proposal			
Short Proposal approved by CHOICE Faculty			
IRB Approval for Dissertation Research			
Write Long Proposal – Committee approves			
Pass Written Dissertation Proposal Defense			
Pass Oral Dissertation Proposal Defense			
Complete 27 credits of Pharm 800			
Dissertation Paper 1			
Develop, collect data, etc.			
Write			
Dissertation Paper 2			
Develop, collect data, etc.			
Write			
Dissertation Paper 3			
Develop, collect data, etc.			
Write			

Write Dissertation Introduction & Conclusion Chapters			
Submit Manuscripts for Publication			
Dissertation Defense			
Submit Final Dissertation to Graduate School			
Graduation			

PhD Progress Table
COURSE REQUIREMENTS

CORE COURSES					<i>2 of these 3 biostats classes are CORE</i>				
Qtr/Yr Completed. Or Waived	Course #	Course Title	Crs.	Grade	Qtr/Yr Completed. Or Waived	Course #	Course Title	Crs.	Grade
	EPI 512	Epidemiologic Methods I	4			BIOST 536^	Categorical Data Analysis	4	
	EPI 513	Epidemiologic Methods II	4			BIOST 537^	Survival Analysis	4	
	BIOST 511 or 517	Biostatistics I	4			BIOST 540^	Correlated data	3	
	BIOST 512 or 518	Biostatistics II	4		Other Course Requirements				
	BIOST 513 (if taking 511 & 512)	Medical Biometry III	4		<i>All Quarters**</i>	PHARM 597	Graduate Seminar		N/A
	HSERV 523	Adv. Research Methods	4-5						
	PHARM 568***	Health Econ	3		18 credits	PHARM 600	Independent Study		N/A
	PHARM 532	Med. Prod. Dev/Policy (odd yrs)	3						
	PHARM 533	Pharmacoepi (even yrs)	3		27 credits	PHARM 800	Dissertation Credits		N/A
	PHARM 534	Econ.Eval Hlth/Med	3		18 credits		Electives	Varies	
	PHARM 535	Assessing Outcomes Hlth/Med	<u>3</u>	—					

^Students must take 2 of the 3 second year Biostats courses – 536, 537, 540

*18 credits of electives must be completed. All suggested electives can be found in the Appendix of the Graduate Student Handbook

**Students must enroll in Seminar each quarter during their PhD program. A waiver may be requested from the Graduate Program Director if a time conflict occurs.

***Required pre-requisite: principles of microeconomics (pre-req course requires approval of Pharm 568 instructor)

ADDITIONAL DEGREE REQUIREMENTS

<input type="checkbox"/>	Pass Preliminary Exams	Date: _____	<input type="checkbox"/>	IRB approval (for dissertation research)	Date: __/__/__
<input type="checkbox"/>	Short Proposal Approved	Date: __/__/__	<input type="checkbox"/>	Pass Oral Proposal Defense	Date: __/__/__
<input type="checkbox"/>	Committee formalized with Grad School	Date: __/__/__	<input type="checkbox"/>	Pass Oral Dissertation Defense	Date: __/__/__
<input type="checkbox"/>	Pass Written Proposal Defense	Date: __/__/__	<input type="checkbox"/>	TOTAL CREDITS: _____ (Must be at least 122)	
<hr/>					
Completed all Core Courses		<input type="checkbox"/>			
Completed 18 credits of elective courses		<input type="checkbox"/>			
Completed 18 credits of PHARM 600		<input type="checkbox"/>			
Completed 12 credits of CHOICE seminar		<input type="checkbox"/>			
Completed 27 credits of PHARM 800		<input type="checkbox"/>			

Student Signature/Date

Advisor Signature/Date



**Annual Review of PhD Student Progress
Mentor Assessment**

Student: _____ Date: _____

Mentor/Chair: _____

Thesis or Dissertation Topic:

Year Entered Program: _____ Estimated month/year of graduation: _____

Mentor Comments:

....continued on next page

Mentor Instructions: Please highlight one number per question, then sign below. The student will then send the completed IDP with mentor assessment and signature to the Graduate Program Director for their review and signature.

Assessment of progress in satisfying PhD Program requirements, including required courses and preliminary and general examinations (for dissertation):

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Assessment of progress in research projects and/or thesis/dissertation:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Assessment of progress in professional development:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Overall assessment of progress:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Mentor Signature/Date: _____

Graduate Program Director Signature/Date: _____

APPENDIX A

University of Washington – The Graduate School Possible Themes and Topics for Goal Setting

It can be challenging to think of what to set goals for in your life, here are some ideas to help jumpstart your thinking. The more specific the better.

Academic

- **What specific knowledge do you need to gain to accomplish your dissertation?**
 - Are there courses or trainings you need to take?
 - Are there independent studies you would like to do with mentors or advisors?
- **What specific skills (methods or techniques) do you need to acquire?**
 - Are there graduate school courses that would help you learn these skills?
 - Could working with other students or faculty members help you attain these skills?
 - Would you like to gain more experience in teaching?
 - Are there specific teaching opportunities that you know of? How can you obtain these?
 - Is there any formal or informal training that may help you feel more confident teaching?
- **What presentations do you anticipate giving?**
 - Do you plan on presenting at conferences?
 - Do you plan on presenting to your dissertation committee?
- **Do you plan on publishing any papers?**
 - Are there certain journals that you are targeting?
 - What are the anticipated titles/topics of the manuscripts?
 - What are the anticipated dates of submission?
 - Are these first author or collaborative publications?
 - If you anticipate on co-authoring, do you need to reach out or follow-up with potential collaborators?
- **Are you planning on submitting applications for funding?**
 - Who are the sources of the funding and what type of award do you seek? When are the deadlines?
 - What are next steps to get ready to submit?

Career

- **What is your overall career goal?**
 - Where do you see yourself working, and in what capacity, in 10 years? (long-term)
 - Where do you see yourself working, and in what capacity, in 5 years (medium-term)
 - What do you want to accomplish towards reaching your career goals in the next year (short-term)
- **Are there relationships with mentors, advisors, or faculty that you hope to cultivate?**
 - What steps can you take to make these connections?
 - Are there letters of reference that you hope to obtain before you are on the job market?
- **Are there any professional development workshops or trainings that you hope to take?**
 - What are the topics? (e.g., leadership, management, collaboration, mentoring)
- **Are you interested in setting up informational interviews, job shadowing, or interning?**
 - If so when does this fit into your timeline?
 - What organizations would you ideally like to intern for?

- Do you have any contacts at these places?
- Are there upcoming networking opportunities where you can make contacts?

Personal Goals

- **Are there things that you could do to make your life feel more balanced?**
 - Would you like to set goals around fitness, eating more healthfully, contemplative time?
 - Do you want to spend more time with your partner, friends, or family? How can you make time in your schedule for this?
- **Are there any financial goals you hope to reach or debts/loans that you plan on paying off by a certain time?**
- **Is having a child/children part of your life plan? If so when could this fit into your timeline?**

This list was informed by templates developed by the UW Department of Medicine and Division of Pulmonary & Critical Care Medicine.



Individual Development Plan

Master of Science in Pharmaceutical Outcomes Research and Policy

The CHOICE Institute, University of Washington

Purpose of the Individual Development Plan: The purpose of an Individual Development Plan (IDP) is to prepare you for your future career after you graduate from the MS program in CHOICE. It is important that you think carefully about your individual career goals and the skills you need to be successful in that career. It is quite likely that your career success will require a much wider range of skills than the ability to design and perform research. Your mentor and other resources at UW and affiliated institutions will be helpful, but you must take primary responsibility for your career preparation.

Outline of the IDP Process: The development, implementation, and revision of IDPs require a series of steps to be conducted by graduate students and their mentors. These steps are an interactive effort, and so both the student and the mentor must participate fully in the process. An Appendix offers guidance and resources for developing your IDP. The UW Graduate [Mentoring Page](#) (with handbooks for students and faculty) is also a good resource.

	For Graduate Students	For Mentors
Step 1	Conduct self-assessment, a tool for you and your mentor(s) to identify your career goals and competencies to reach your goals	N/A
Step 2	Write an IDP, including your MS Progress Table and MS Timeline. Share with mentor(s) and revise	Review IDP and help revise
Step 3	Implement the IDP and revise as needed	Establish regular progress review
Step 4	Identify and explore potential career paths with mentor(s). Assess how your knowledge and skills match the competencies required by your chosen career(s), and revise your IDP to prioritize developmental areas that you will need for your career(s).	Discuss opportunities with mentee

Once you have drafted your IDP, meet with your mentor(s) to discuss the draft, and schedule regular meetings to review and assess your progress. Make use of as many mentors as you find helpful—you will find that most people are very willing to help to guide you in understanding your goals and defining what mentoring you need.

Your IDP should be considered a living document that will evolve over time as you move through your training. You will be expected to update it in consultation with your mentor annually, and before it is reviewed annually by the CHOICE Faculty.

Individual Development Plan (IDP)

Please complete your IDP (with your updated CV, Progress Table, and Timeline) and review with your mentor/chair. Obtain their signature and sign it yourself and submit electronically to Marina Gano, mcgano@uw.edu

Review Schedule:

Fall Faculty Meeting: 3rd years and above

Winter Faculty Meeting: 2nd years

Spring Faculty Meeting: 1st years (including MS fellows)

Student: _____ Date: _____

Mentor/Chair: _____

Thesis or Dissertation Topic:

Year Entered Program: _____

Estimated month/year of graduation: _____

Individual Development Plan (IDP)

4. Self-Assessment

The self-assessment will help you to gauge your skills, strengths and areas that need further development. Some of the skills and strengths that are relevant to career decisions in research include: technical abilities (breadth and depth of expertise), writing skills, oral communication skills, organizational ability, leadership, self-motivation, decision-making, creativity, work ethic, problem solving abilities, knowledge (depth and breadth), perseverance, and ability/desire to take risks.

Take a realistic look at your current abilities. This is a critical part of career planning. Involve your mentors, faculty, colleagues, family and friends in the assessment process by asking them to identify your strengths and the areas you need to develop. There are no word limits in the IDP form. *Please review the Appendix Self-Assessment Guide to initiate the self-assessment process.*

a. Describe/List Your Existing Strengths:

b. Describe/List Areas for Further Development:

2. Academic Goals

After completing the self-assessment, defining goals (academic and career) begins with articulating your interest(s), based on your strengths and the jobs that you might want in different employment sectors (e.g. academia, industry, non-profit, government, or other research/teaching-related areas). Think about where you want to be in your career.

When completing each section, please indicate how sure or unsure you are about your future goals and objectives. If you can't decide on your preferred career path now, define what you need to know to make the choice, how you will obtain that information, and the time period over which you will work on determining your path. Execute that plan and then develop the actual IDP as your specific career goals become better defined.

- a. **What are your academic goals for the upcoming year?** (short-term objectives; be specific):

- b. **Courses you intend to complete in the upcoming academic year (course name and number):**

Core Courses:

Elective Courses:

c. If you have established your thesis committee, list the members here:

--

d. Biomedical Research Integrity Program (BRI)

Which lectures did you complete to satisfy the BRI requirement stated in the Graduate Student Handbook? r. Check the topics completed to date, and the quarter of completion.

Check if completed	Topic	Quarter completed
<input type="checkbox"/>	Data Acquisition, Management, Sharing, and Ownership	
<input type="checkbox"/>	Research Misconduct	
<input type="checkbox"/>	Responsible Authorship and Publication	
<input type="checkbox"/>	Conflict of Interest	
<input type="checkbox"/>	Peer Review	

3. Career Goals**a. What are your broader career goals for the upcoming year?** (short-term objectives; be specific)

--

b. What do you want to be doing within 2-5 years after you graduate? (medium-term objectives)

--

c. **What do you want to be doing in 10 years?** (long-term objectives)

d. **What is your overall career goal?** (as of now – you can change your mind later)

4. **Acquiring Knowledge and Research Skills**

Once you have an idea of your strengths, the gaps in your knowledge or experience, and your career goals, think of ways to fill those gaps during your Master's program. The remaining sections of the IDP pose questions about what skills you will need to be successful in your career and how you will develop those skills and gain essential experience. You should involve your mentor and committee members in helping you define what you need and in addressing those needs.

a. **Briefly describe your research projects in the past 12 months** (accomplishments, products, traineeships, research assistantships, or other jobs and detailed tasks, which can include classroom papers/projects, PHARM 600 independent studies, dissertation plans). Please include human subjects' information for each project, as relevant. If you have no projects, please state so.

- b. **Briefly describe your research goals for the next 12 months** (products, traineeships, research assistantships, or other jobs and detailed tasks, which can include classroom papers/projects , PHARM 600 independent studies dissertation plans). Please include human subjects' information for each project, as relevant. If you have no projects, please state so.

- c. **What specific skills or expertise** (methods, techniques, knowledge, specific courses, etc.) have you already acquired during the course of your project(s)?

- d. What specific skills or expertise (methods, techniques, knowledge, specific courses, etc.) do you need to learn to accomplish this project and/or your career goals?

5. Development of Career Skills (Professional Development)

Once you have an idea of your strengths, the gaps in your knowledge or experience, and your career goals, think of career skills (professional development) you wish to gain during your Master's program.

- a. **Communication skills:** List progress you have made in developing communication skills and specific areas to improve in the future (e.g., skills in grant writing, manuscript writing, poster and oral presentations, science writing for the public, networking)

- b. **Teaching experience (if a career goal):** List previous, current and future specific teaching assistantships and other teaching opportunities, including formal or informal training in didactics

- c. **Mentoring (if a career goal):** List previous, current and future mentoring opportunities, informal and formal.

- d. **Leadership, time management, research management, etc.:** List accomplishments and future areas for improvement in these and other relevant areas.

10. Setting Goals for Progress

- a. Oral and poster presentations:** List oral and poster presentations (e.g. works-in-progress, seminar presentations, local, regional, national, and international presentations, abstracts submitted) given/planned in the past 12 months and next 6 months. Include conferences you attended, noting titles and dates of presentations & posters on your CV. Describe how you will fund travel for future conferences.

- b. Publications:** List all publications since entering the MS program, including those that you are preparing for submission to journals, and the status of your submitted papers (if applicable):

- c. Funding needs and applications:** Describe future funding needs and list specific sources of previous and potential funding and type of award, with expected submission dates.

- d. Progress toward career goals in other areas:** Please add additional information as relevant.

11. Moving to the Next Step in Your Career

With your career goals in mind, reserve time and effort to develop professional competencies for the job search process that may increase the chances of securing a job offer of your choice in a timely manner. Take time to identify areas you need to improve and the resources available within and outside of the University.

- a. Key contacts to make to explore career options and investigate leads:**

- b. Potential sources for letters of reference (cultivate these relationships early):**

- c. Development of CV/resume, research summary, etc.:**

- d. **Other steps to take** (e.g., tips from mentor(s) for moving to the next step; other professional development, informational interviews, networking/attending conferences):

12. Student Evaluation of Program

- a. **Describe your interactions with your mentor.** Specify ways that your mentor helped you achieve your goals for the program. Note areas that might be improved in your relationship with your mentor.

- b. **Identify areas in the program that you think need improvement.** Please be specific.

**Course Requirements
MS Progress Table**

COURSE REQUIREMENTS:

CORE COURSES				
Qtr/Yr Completed or Waived	Course Number	Course Title	Crs.	Grade
	EPI 512	Epidemiologic Methods I	4	_____
	EPI 513	Epidemiologic Methods II	4	_____
	BIOST 511 or 517	Biostatistics I	4	_____
	BIOST 512 or 518	Biostatistics II	4	_____
	BIOST 513 (if taking 511 & 512)	Medical Biometry III	4	_____
	PHARM 532	Methods in Pharmaceutical Policy Analysis (<i>offered odd years</i>)	4	_____
	PHARM 533	Pharmacoepidemiology (<i>offered even years</i>)	3	_____
	PHARM 534	Economic Evaluations in Health and Medicine	3	_____
	PHARM 535	Assessing Outcomes in Health and Medicine	3	_____
	PHARM 536	Advanced Methods in Economic and Outcomes Evaluation in Health and Medicine	3	_____
	PHARM 568*	Health Economics	3	_____
	PHARM 597**	Graduate Seminar	3	_____
	PHARM 700	Master's Thesis	9 total	_____

^ Students must take two of the following five: PHARM 532, 533, 535, 536 or 568

*Required prerequisite: principles of microeconomics 300 or equivalent (requires instructor approval)

**Students must enroll in Seminar each quarter during their MS program.

Other Requirements

Completed all Core Courses	<input type="checkbox"/>
Completed optional credits of elective courses	<input type="checkbox"/>
IRB approval (for thesis research)	<input type="checkbox"/>
Completed required credits of CHOICE seminar	<input type="checkbox"/>
Completed 9 credits of PHARM 700	<input type="checkbox"/>
TOTAL CREDITS	

MS Program Timeline

Please work with your faculty advisor to complete. Note: these items are not necessarily in chronological order.

Task	Date	Status: Planned, In Progress, or Completed
Enroll		
Completed all CHOICE Core Courses		
Complete optional Elective Courses		
Complete 9 credits of Pharm 700		
Complete CHOICE Seminar each quarter enrolled		
Form Thesis Committee		
Write Thesis Proposal		
IRB Approval for Thesis Research		
Collect/ Analyze Data		
Write Thesis		
Submit Thesis for Publication		
Submit Final Thesis to Graduate School		
Graduation		

 Student Signature/Date

 Advisor Signature/Date

**Annual Review of MS Student Progress
Mentor Assessment**

Student: _____ Date: _____

Mentor/Chair: _____

Thesis or Dissertation Topic: _____

Year Entered Program: _____ Estimated month/year of graduation: _____

Mentor Comments:

....continued on next page

Mentor Instructions: Please highlight one number per question, then sign below. The student will then send the completed IDP with mentor assessment and signature to the Graduate Program Director for their review and signature.

Assessment of progress in satisfying MS Program requirements, including required courses:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Assessment of progress in research projects and/or thesis:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Assessment of progress in professional development:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Overall assessment of progress:

/	1	/	2	/	3	/	4	/	5	/
Poor		Fair		Good		Very Good		Exceptional		
Progress		Progress		Progress		Progress		Progress		

Mentor Signature/Date: _____

Graduate Program Director Signature/Date: _____

APPENDIX A

University of Washington – The Graduate School Possible Themes and Topics for Goal Setting

It can be challenging to think of what to set goals for in your life, here are some ideas to help jumpstart your thinking. The more specific the better.

Academic

- **What specific knowledge do you need to gain to accomplish your dissertation?**
 - Are there courses or trainings you need to take?
 - Are there independent studies you would like to do with mentors or advisors?
- **What specific skills (methods or techniques) do you need to acquire?**
 - Are there graduate school courses that would help you learn these skills?
 - Could working with other students or faculty members help you attain these skills?
 - Would you like to gain more experience in teaching?
 - Are there specific teaching opportunities that you know of? How can you obtain these?
 - Is there any formal or informal training that may help you feel more confident teaching?
- **What presentations do you anticipate giving?**
 - Do you plan on presenting at conferences?
 - Do you plan on presenting to your dissertation committee?
- **Do you plan on publishing any papers?**
 - Are there certain journals that you are targeting?
 - What are the anticipated titles/topics of the manuscripts?
 - What are the anticipated dates of submission?
 - Are these first author or collaborative publications?
 - If you anticipate on co-authoring, do you need to reach out or follow-up with potential collaborators?
- **Are you planning on submitting applications for funding?**
 - Who are the sources of the funding and what type of award do you seek? When are the deadlines?
 - What are next steps to get ready to submit?

Career

- **What is your overall career goal?**
 - Where do you see yourself working, and in what capacity, in 10 years? (long-term)
 - Where do you see yourself working, and in what capacity, in 5 years (medium-term)
 - What do you want to accomplish towards reaching your career goals in the next year (short-term)
- **Are there relationships with mentors, advisors, or faculty that you hope to cultivate?**
 - What steps can you take to make these connections?
 - Are there letters of reference that you hope to obtain before you are on the job market?
- **Are there any professional development workshops or trainings that you hope to take?**
 - What are the topics? (e.g., leadership, management, collaboration, mentoring)
- **Are you interested in setting up informational interviews, job shadowing, or interning?**

- If so when does this fit into your timeline?
- What organizations would you ideally like to intern for?
- Do you have any contacts at these places?
- Are there upcoming networking opportunities where you can make contacts?

Personal Goals

- **Are there things that you could do to make your life feel more balanced?**
 - Would you like to set goals around fitness, eating more healthfully, contemplative time?
 - Do you want to spend more time with your partner, friends, or family? How can you make time in your schedule for this?
- **Are there any financial goals you hope to reach or debts/loans that you plan on paying off by a certain time?**
- **Is having a child/children part of your life plan? If so when could this fit into your timeline?**

This list was informed by templates developed by the UW Department of Medicine and Division of Pulmonary & Critical Care Medicine.

APPENDIX B: CHOICE MS Fellows: Suggested Program of Study: Master of Science - 3 quarters

Autumn Quarter			Winter Quarter			Spring Quarter		
Course No.	Course Name	# of Credits	Course No.	Course Name	# of Credits	Course No.	Course Name	# of Credits
PHARM 700	Thesis	2	PHARM 700	Thesis	2	PHARM 700	Thesis	5
PHARM 534	Economic Evaluation in Health & Medicine	3	PHARM 535 or PHARM 568*	Assessing Outcomes in Health & Medicine OR Health Economics	3	PHARM 532 or PHARM 533	Methods in Pharmaceutical Policy Analysis (odd years) OR Pharmacoepidemiology (even years)	3-4
EPI 512	Epidemiologic Methods I	4	EPI 513	Epidemiologic Methods II	4	PHARM 536	Advanced Methods in Economic and Outcomes Evaluation in Health and Medicine	3
BIOSTATS 511	Medical Biometry I	4	BIOSTATS 512	Medical Biometry II	4	BIOSTATS 513	Medical Biometry III	4
PHARM 597*	Seminar	1	PHARM 597*	Seminar	1	Pharm 597*	Seminar	1
CS&SS 508 Or BIOST 509	Introduction to R for Social Scientists OR Introduction to R for Data Analysis in the Health Sciences	1						
		15			14			16
							TOTAL CREDITS	45

^ Students must take two of the following five: PHARM 532, 533, 535, 536 or 568

*Required prerequisite: principles of microeconomics 300 or equivalent (requires instructor approval)

**Students must enroll in Seminar each quarter during their MS program.