



**University of Washington
Department of Pharmaceutics**

Degree Programs in Pharmaceutics

Student Handbook of Policies and Guidelines



I. CONTACTS

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This Policies and Guidelines Handbook can be found online at:

<https://sop.washington.edu/department-of-pharmaceutics/graduate-education-training-programs/phd-program/student-handbook/>

II. THE DEPARTMENT

The Department of Pharmaceutics is comprised of approximately 100 graduate students, post-doctoral fellows, research staff and administrative staff, led by the Milo Gibaldi Endowed Chair, Nina Isoherranen, PhD. We are currently housed within the Heath Sciences Building on the University of Washington campus, primarily in the H-wing, T-wing and D-wing.

The University, its Graduate School, and Departments have defined responsibilities toward their graduate programs and graduate students. The major responsibility of all is to provide the most favorable environment possible in which students can develop their maximal potential for creative scholarship and independent research. This environment is comprised of the graduate faculty, instructional offerings, research facilities, library resources and a stimulating group of capable graduate students.

The UW School of Pharmacy and Department of Pharmaceutics espouse a philosophy of inclusivity. Our overall mission in this regard is to attract, retain, and promote the success of students from all populations in the profession of pharmacy and the pharmaceutical sciences, and to endeavor to support the University's mission of enhancing diversity and equity in all forms and helping students, faculty and staff understand differences in areas such as, but not limited to, religious, racial, cultural, sexual orientation, political, economic, disability and gender perspectives.

The School of Pharmacy Strategic Plan for Diversity, Equity and Inclusion can be found in its entirety at the following link:

<https://sop.washington.edu/about/diversity-plan/>

The UW Diversity Blueprint can be found in its entirety by clicking at the following link:

<http://www.washington.edu/diversity/diversity-blueprint/>

III. THE Ph.D. DEGREE

The principal graduate degree offered by the Pharmaceutics department is the Doctor of Philosophy (Ph.D.), which is the focus of much of this Policies and Guidance Handbook. The Ph.D. is considered the most accomplished academic achievement an individual can attain in preparation for a career of creative scholarship. It is the highest degree conferred by universities and, by nature and tradition, it is a research degree. It is not conferred merely as a certificate to a prescribed course of study. Every department offering a Ph.D. has the responsibility to assure that it will be granted only to candidates who have demonstrated present capacity and future promise to be an independent and creative thinker.

IV. Ph.D. PROGRAM TRAINING OBJECTIVES

The doctoral degree program in Pharmaceutics trains research scholars in the fundamental aspects of drug disposition and drug action. Drug disposition pertains to the facets of drug absorption, distribution, and elimination; pharmacokinetics is a sub-discipline within the pharmaceutical sciences, and is the study of the time course of these processes. Areas of emphasis include: 1) drug delivery – processes for enhancing the absorption of a drug and targeting it to the site of action in order to improve therapeutic effect; 2) drug metabolism – enzyme catalyzed molecular transformations that often impart different disposition and pharmacological properties compared to the parent molecule; 3) drug excretion – the transport of drug molecules into target tissues (e.g., brain and placenta) and excretory fluids (renal filtrate and bile); and 4) pharmacometrics and physiologically based modeling of drug disposition and action.

Graduates of the Pharmaceutics doctoral program will possess expertise in basic biochemical, cellular and molecular techniques and quantitative analytical methods, as well as technical skills for the elaboration of mathematical models that describe the kinetics of drug disposition and action. They will be capable of investigating the causes of inadequate exposure to a drug at the target site and elucidating the relationship between the kinetics of drug and metabolites in various body compartments or tissues and the manifestation of pharmacologic, therapeutic and toxic effects. They will be able to probe the impact of alteration in physiological and biochemical processes, which may occur due to disease states or genetic variations, on drug disposition and pharmacological response. Many of these studies will require expertise with in vitro methodologies, which students can acquire. In addition, often students will gain experience in the conduct of pharmacokinetic and pharmacodynamic studies in animals and humans. Typically, a Pharmaceutics graduate student will interact with clinicians, medicinal chemists, biochemists, pharmacologists, analytical chemists, physiologists and biostatisticians. This will be possible because their training is highly interdisciplinary at the didactic and research levels.

The Pharmaceutics faculty expect students in its graduate program to take ownership of their training. Required and recommended courses of instruction are provided, but the student should develop an individual career development plan (see IDP in section VII below) that integrates this coursework with relevant knowledge gained from within the broader University community and from outside sources in order to best prepare themselves for the career that they envision. Students should not be constrained by what others in the program have done in the past or what current peers are pursuing, but rather customize their training plan to the extent allowable and possible to meet their personal goals.

Students in the Pharmaceutics graduate program must adhere to the very highest standards of academic and professional conduct. Academic honesty and professional integrity should be foremost in their minds as they navigate through our highly demanding didactic and experiential course of training. To do otherwise is to fail themselves and the public that subsidizes their education. Much of the research in the Pharmaceutics department that will comprise a dissertation is funded by the National Institutes of Health. All involved in that research have a moral obligation to conduct their work with the highest level of integrity and personal responsibility.

Students will be offered instruction on biomedical research integrity and responsibility in the form of courses (Biomedical Research Integrity series; see **Appendix E**, section 6 below) and interactive discourse on selected topics (held periodically in Journal club) to help them achieve these expectations. At any time, they can seek additional guidance from their advisor, supervisory committee and Department Chair, as well as the University Ombud: <https://www.washington.edu/ombud/>

V. Ph.D. PROGRAM REQUIREMENTS

Graduate students in Pharmaceutics are also students of the Graduate School and as such must satisfy the general requirements of the Graduate School and the requirements of the Department in which they undertake their graduate training. A full description of requirements of the Graduate School can be found here: <http://grad.uw.edu/for-students-and-post-docs/degree-requirements/> Some of the pertinent requirements of the Graduate School and Department are described below. They deal with scholarship, residence, supervisory committees, research dissertation, and examinations (general and final).

The following include a combination of pertinent Graduate School and Department requirements for the Ph.D. degree in Pharmaceutics:

- 1) **Residence:** A minimum of three academic years of resident study is required (90 credits), two of them (60 credits) being at the University of Washington. Residence is defined as 10 credits per quarter (A,W,Sp) or 2 credits during summer quarter. Only courses numbered 300 and above count toward residence. Dissertation research must be conducted at the University of Washington, unless the research is of a collaborative nature requiring off-campus facilities. See link here <http://grad.uw.edu/policies->

[procedures/general-graduate-student-policies/graduate-on-leave-status/](#) to Leave Policies.

- 2) Credits and scholarship: A minimum of 41 credits of course work, exclusive of dissertation and non-dissertation research, must be satisfied. An average grade point of 3.0 in all numerically graded courses numbered at the 500 level is required. A minimum passing grade in any given course is 1.7, except required pharmaceuticals courses in which the required grade is 3.0. See Appendix A for further details.

All students are expected to take graduate research credits, using either PCEUT 600 (before completion of general exam), 700 (for Master's students only – entry track or terminal track) or 800 (after passing the general exam) course offerings, all four quarters (including summer), in every year they are in the program.

- 3) Teaching experience: A minimum of one quarter of teaching assistantship experience is a required component of training for the Pharmaceutics Ph.D. degree. Depending on the educational experience offered in an individual course the student may be asked to complete two quarters of teaching assistantships. Students will not be asked to assist more than 1 class an academic quarter (< 12 contact hrs/week). Most students will complete this requirement during the first three years in the program.
- 4) Seminars: All graduate students must present a minimum of 2 and a maximum of 4 seminars while in the doctoral program (PCEUT 520). In addition, all students must participate in PCEUT 583, an interactive journal club. The student is expected to register in PCEUT 583 and meet the course requirements starting at the beginning of the first year and until the quarter of student's defense of the thesis. Students are not required to register for PCEUT 583 in the quarter that they plan to graduate.
- 5) Examinations and progress evaluation: All graduate students must participate in the departmental examinations. A series of cumulative (written) examinations was required prior to Autumn 2019. The general (oral) examination is required for advancement to Ph.D. candidacy, and a final examination (defense of the dissertation) is required for the degree. (See **Appendix B and D** for details)

VI. SELECTION OF A RESEARCH SUPERVISOR

The relationship between a research supervisor and a graduate student is a very special one and requires significant deliberation. Agreement in the selection of a supervisor must be mutual and must be done on a fully informed basis.

Students in the Ph.D. program will be matched with a research supervisor (major advisor) no later than the end of spring quarter of their first academic year. A student may submit a request for a research supervisor to the Department Chair after discussion with the supervisor at any time during their first academic year. At the end of their winter quarter of their first year students can submit their three

ranked choices to the Department Chair. For those students who opt to complete three rotations, their choices should be submitted to the Department Chair by the end of Spring Quarter. Although the Chair will attempt to accommodate every student's first choice for a supervisor, it is possible that this will not occur because of previous commitments by the faculty to other students in the program and laboratory space or funding constraints.

Once selected, the supervisor's primary role is to provide guidance, supervision and evaluation of the student's study program and research (See **Appendix C** for additional details).

VII. PROGRESSION OF STEPS IN RELATION TO THE DOCTORAL DEGREE

This section is intended to offer an outline of key procedural steps that must be taken to receive a Ph.D. Additional details are found within the accompanying Appendices.

- 1) Selection of doctoral supervisor (advisor): Students are encouraged to become familiar with the research interests and activities of all faculty members in the department and are required to work on non-dissertation research for the first two quarters during their first year. They may work with up to 3 faculty (1 per quarter). Doctoral advisors should be chosen by the start of Summer Quarter during a student's first year, but this decision can be made at the end of Winter Quarter, or earlier, in special circumstances.
- 2) Development of research skills and identification of dissertation topic: By Summer Quarter of the first year, the student must begin to participate fully and actively in the laboratory of the doctoral advisor. By a student's second year, discussions should begin with their advisor on identifying a suitable dissertation topic, and the student should actively be conducting thesis research by Summer Quarter of the 2nd academic year or 8th academic quarter.
- 3) Preparation of Individual Development Plan: Each student must prepare an individual development plan (IDP) during Spring Quarter of their first year (contact Graduate Program Advisor for template), review this with their doctoral advisor (or Chair if an advisor hasn't been selected) and submit to the Graduate Program Director. The student must update the IDP annually by May 25 each year, and review the IDP and their progress towards the goals with the Doctoral Supervisory Committee. This information will be used for the RA reappointment process. Students are notified of RA reappointment by June 1 of each year.
- 4) Appointment of Doctoral Supervisory Committee: This essential committee should be formed early in a student's 2nd year and should meet at least once before the General Exam is scheduled. The student must notify the Graduate Program Director of any new members of their committee added during their dissertation study or any changes in the composition of the committee. Each time the committee meets with the student, a Doctoral Supervisory Evaluation

form is to be filled out and signed by the advisor and students. Students are strongly encouraged to view their committee members as a resource to be consulted about any academic matter as a group or in one-on-one discussions.

- 5) Scheduling and format of General Examination: Students should take the General Exam by the end of their 2nd year or, at the latest, Autumn Quarter of Year 3. A student's doctoral supervisory committee must have at least 4 members, including a Chair, Graduate School Representative (GSR) and two additional Graduate Faculty Members.
- It is suggested that the committee be formed 4 months prior to the exam date, but this is not required. Students need to make sure they have notified the Graduate Program Advisor of their committee members so they can be recorded in MyGrad prior to the student scheduling the exam in MyGrad (student view).
 - No later than 3 weeks prior to the desired date of the General Examination, the student must request scheduling of the date in MyGrad (student view), which will then be approved by the Graduate School. All members of the committee will automatically be notified of the date and time of the exam.
 - During time of examination, the advisor should have available a current copy of the student's transcript of courses taken and credits earned, plans for future course work and completion of any outstanding requirements. In addition, the advisor will also need a copy of a Doctoral Supervisory Committee form.

The student becomes a "candidate" for the Ph.D. upon successfully passing the general exam.

- 6) Appointment of the dissertation reading committee: When a dissertation is in the final stages of preparation, the student with consultation from his/her research supervisor should ask members of the Supervisory Committee (usually two general members and the Chair) to act as the dissertation Reading Committee. Once the chosen faculty agree, the student notifies the Graduate Program Advisor, who completes the online appointments through the MyGrad Program. Using the forms supplied by the Graduate School, the Reading Committee reports their recommendation. The form MUST be signed and submitted during the same quarter the student does their final defense.
- 7) Scheduling of the Final Examination: No later than three weeks prior to the desired date of the Final Examination, the student must request the final examination using the MyGrad Program Student View by completing the online request. All committee members will be notified automatically by email of the date and time of the exam. The Graduate Program Advisor will print out the paper warrant and GSR form and give them to the Chair of the Committee and GSR, respectively, on the day of the exam.

VIII. DIDACTIC TRAINING and PROGRAM REQUIREMENTS (See Appendix A)

IX. FINANCIAL ASSISTANCE

A Ph.D. student can expect to receive departmental financial support for a period of 5 years in the form of a Research Assistantship (RA) that provides a tuition waiver and a stipend. This period of support can be extended through petition. The RA reappointment and recommitment of financial support is made annually at the end of Spring Quarter and is based on an assessment of student progress toward the degree (see section VII). Evaluation criteria include grades, laboratory/research performance and exam outcomes. The level of stipend support and other benefits for those students who are eligible are negotiated through union contract: <https://grad.uw.edu/graduate-student-funding/for-students/assistantships/>

Students who matriculated into the Ph.D. program but who are directed into a terminal M.S. track may receive continued financial support for the remainder of their last yearly RA appointment period, so that they may complete research requirements and prepare a Master's thesis.

The Department limits the number of entry-level M.S. students in its graduate program (requests evaluated on a case-by-case basis) and does not typically offer them financial support. The research advisor may offer support through funds that they control. In addition, the Department will assist the student (Letter of Recommendation) if they choose to seek financial support from other intramural or extramural sources.

X AWARDS AND SCHOLARSHIPS

Graduate students in the doctoral and Master's program are eligible for multiple scholarship and travel awards offered by the Pharmaceutics department, the School of Pharmacy, the UW Graduate School and Health Science administration, NIH and various private Foundations. All are merit-based and require an application and review process. A list of current opportunities, eligibility criteria and application details can be found in **Appendix E**.

Scholarships, such as NIH training grants, often take the form of tuition and stipend support that supplants (in part or in total) departmental support. Occasionally, part or all of the award will augment departmental support with funds that can be used at a student's discretion to further their research and training goals. Some awards (typically private) can be used for personal needs (e.g., living expenses). By their nature, travel awards are used to help cover the cost of attending a research or special training conference; this typically includes transportation to the meeting, housing on site, incidental expenses and occasionally a per diem.

The awarding of a named scholarship or travel award is a recognition of exceptional merit, based on the current course of study or scholarly potential. As such, it should be received with pride and can be cited in a Curriculum Vitae or Resume.

XI RA REAPPOINTMENT PROCEDURE

With rare exception, upon admission into the Pharmaceutics doctoral program, all students are offered a Research Assistantship. The initial appointment is made automatically upon matriculation and can be renewed annually. The renewal process begins during Spring Quarter with the preparation (first year) or update (subsequent years) of the Individual Development Plan, which instructs the student to provide a 1-page summary of research and training activities, and other accomplishments (e.g., extramural research presentations, publications, awards) during the preceding year. Students will also be asked to provide a brief outline of goals for the next academic year. This document should be turned in to their faculty advisor (or the department Chair, if they are absent) by May 25. The Individual Development plan will be reviewed by the department Chair and Advisor (if named). Once formed, members of the Doctoral Supervisory Committee will also review the plan and the student's progress annually. A copy of the reviewed IDP should be given to the Graduate Program Advisor for inclusion in the student file.

RA reappointment decisions, as well as financial support and benefits that they can expect for the next academic year, will be communicated in writing to the student no later than June 1, and students will have two weeks to respond to the offer of reappointment, per the contract for Academic Student Employees (ASEs) found here: <https://hr.uw.edu/labor/unions/uaw/ase-contract>.

When significant deficiencies in the progress of a student are identified, a meeting between the student, faculty advisor, advisory committee (once formed) and Department Chair will be scheduled to determine the appropriate course of action. Ideally, this will be a recommendation to continue in the program as planned, but it may include remedial work and more frequent milestones during the next year. Reappointment can be denied because of a failure to maintain good scholastic standing (GPA below 3.0) or a failure to make substantive research progress towards the degree. RA reappointment letters will be placed in the student's academic file and can be viewed, upon request, by the student at any time.

XII. ACCOMMODATIONS, STUDENT SAFETY AND MENTAL HEALTH

1) Disability Accommodations

The University of Washington, School of Pharmacy and Department of Pharmaceutics are committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. This includes accommodations in the conduct of course and program exams. For information or to request disability accommodation contact: Disability Resources for Students (DRS): <http://depts.washington.edu/uwdrs/>

2) Student Safety and Mental Health

A detailed description of campus safety and mental health services available to all our graduate students can be found in **Appendix G**, Quick References for Student Life.

XIII. APPENDICES

The following appendices provide additional details on departmental policies and guidelines:

- A. Didactic Training – PhD and MS Programs**
- B. Cumulative Examination (prior to Spring 2019 only)**
- C. Role of the Master’s and Doctoral Supervisory Committees**
- D. Preparing for General and Final Examinations**
- E. Scholarships and Awards**
- F. Student Grievance Procedures**
- G. Quick References for Student Life**
- H. Typical Schedule of Core Requirements**

APPENDIX A
Ph.D. and M.S. Programs in Pharmaceutics
Didactic Training

Ph.D. Degree Program

Course work for the doctoral program is divided into four components: (1) prerequisites which define the level of entry into the program; (2) a required core program which is analogous to the major; (3) elective courses, which are not required but are encouraged; (4) seminars and journal club.

1) Prerequisites

- Differential Calculus (MATH 124; 5 cr)

Candidates are accepted into the program on the condition that any deficiencies in course requirements are rectified by the end of the first academic year.

The Department of Pharmaceutics implemented a new curriculum beginning in Autumn Quarter 2019, with transition beginning Spring 2019. Please see **Appendix G** for the typical schedule of core requirements.

2) Core Courses (revised curriculum) – beginning Autumn 2019:

This applies to students who entered the program beginning in or later than Autumn Quarter 2019. The didactic pharmaceutics core consists of the following disciplines and specific courses:

- PCEUT 502: Drug Disposition Science (2 cr)
- PCEUT 505: Concepts in Pharmaceutical Sciences I (2 cr)
- PCEUT 506: Concepts in Pharmacokinetics (2 cr)
- PCEUT 507: Advanced Pharmacokinetics (3 cr)
- PCEUT 532 Clinical Pharmacokinetics (4 cr)

Additional didactic core courses:

- MEDCH 501: Medicinal Biochemistry
- BIOST 511: Medical Biometry I (4 cr)
- *PHCOL 510, 511, 512, 513 (choose 3 out of 4), General Pharmacology (2 cr each/6 cr total). *Required only for training grant students.

3) Core Courses (prior curriculum) – through Spring Quarter 2019:

This applies to students who entered the PhD program in or prior to Autumn Quarter 2018. The didactic pharmaceutics core consists of the following disciplines and specific courses:

- a) PCEUT 531 Pharmaceutical Formulation: Principles and Dosage Forms (4 cr)
- b) PCEUT 532 Clinical Pharmacokinetics (4 cr)
- c) PCEUT 533 Biopharmaceutics and Drug Delivery (3 cr)
- d) PCEUT 505, Concepts in Pharmaceutical Sciences I (2 cr)
- e) PCEUT 506, Concepts in Pharmaceutical Sciences II (4 cr)

A selection of any two of the three advanced courses (PCEUT 501, PCEUT 502, and PCEUT 503)

- f) PCEUT 501, Advanced Pharmacokinetics (5 cr)
- g) PCEUT 502, Pharmacokinetics of Drug Metabolism (4 cr)
- h) PCEUT 503, Drug Transport and Delivery (5 cr)

Additional didactic core courses:

- i) PHCOL 510, 511, 512, 513 (choose 3 out of 4), General Pharmacology (2 cr each/6 cr total)
- j) BIOST 511, Medical Biometry I (4 cr)

The above core courses are considered essential for all students in the program. However, the program recognizes that each student has individual needs for their dissertation research and will accommodate petitions by the student, in consultation with the student's supervisory committee, to waive and replace some of these requirements as long as the student completes the equivalent number of graded credits or can demonstrate equivalent previous graduate-level course work in the required areas. In addition, all students must attend the following training sessions, preferably during the first academic year: Chemical Safety, Biological Safety, and Bioethics training. Radiation Safety, Human Subjects (CITI course strongly recommended) and Animal Care may also be required at some point, if relevant to the student's dissertation research.

4) Directed Electives

The purpose of elective coursework is to provide an enhancement of the core training. By its nature, it is highly individualized and should be geared to suit individual interests. There is no formal requirement for elective coursework in the Pharmaceutics doctoral program. However, the student is encouraged to take as electives courses offered by UW that might be a benefit to their dissertation project and career goals.

5) Seminars, Literature Review, CUM Exam

- a) PCEUT 520: Seminar (1 cr/quarter; 3 qtr/year until graduation)

Students are expected to enroll in PCEUT 520 every quarter in residence, until they receive their graduate degree. Beginning in the second year, students are to make 1 presentation each year, with a maximum of 4 presentations by the time of graduation.

A general topic seminar is presented in the second year; research presentations are presented in subsequent years. See the course master (currently Ed Kelly) for additional guidance.

b) PCEUT 583: Journal club (1 cr/quarter; 3 qtr/year until graduation)

Students are expected to enroll in PCEUT 583 every quarter in residence, until they receive their graduate degree. An exception will be made for the quarter in which they defend. See the course master (rotates quarterly; see Graduate Program Assistant for faculty name) for additional guidance.

c) PCEUT 599: Cum Exam (1 cr, AUT Yr 02 – prior to SPR 2019 only)

Students must pass a series of cumulative exams to maintain their eligibility for the doctoral degree. Examinations begin in Spr quarter of Yr 01; a grade is awarded in AUT Yr 02. See **Appendix B** for additional details. **[Please note: PCEUT 599 Cumulative Exam no longer required as of Spring 2019. Students entering the program Autumn 2018 or later are not required to complete PCEUT 599.]**

6) Research

a) PCEUT 600, 800 (variable credits)

Students entering the doctoral program are required to complete research laboratory rotations (PCEUT 600, 2 cr), one per quarter, starting Autumn Quarter of their first year, until a research advisor has been declared. The matching of available rotation labs with each incoming student will be facilitated by the Graduate Program Director. Student preferences will be given due consideration.

Students may choose a research advisor at any time during the first three quarters of the first academic year. They must choose a research advisor no later than the end of Spring Quarter in their first academic year. They must also begin research in the lab of their advisor by the start of Summer Quarter in their first academic year (PCEUT 600, variable credit).

After successful completion of the General Exam requirements (see **Appendix D** for details), students will sign up for PCEUT 800, variable credits, until the defense of their dissertation, in order to meet the research requirements of the Department and the Graduate School. A minimum of 27 800-level credits is required for receipt of the Ph.D.

7) Biomedical Research Integrity

Students are required to take training in biomedical research integrity. We require that all 1st and 2nd year students complete a series of FIVE lectures (but not the discussion sections) presented as part of the BRI program by the end of their 2nd summer for 2 credits: <https://depts.washington.edu/uwbri/front>. The Department will provide additional BRI training through its Journal Club course. Selected topics in depth will be covered on a periodic basis, such that every student will likely receive the training twice during their time in the doctoral

program (early when they are building an understanding and later when they can share their knowledge and experience).

8) Auditing a Course

Instructors in Pharmaceutics will not grade the homework or exams of a student who audits a class without registering. To have your homework and exams graded, a student must register for the course. If the course is a required course, you must register for it as a graded course. If the course is optional you may register for it either as a graded course or elect it to be graded S/NS or CR/NC. Whether you can register for a course as CR/NC is at the discretion of the course master. If you want to audit a class, please be sure to obtain the permission of the course master in advance.

The UW policy on registering for S/NS is as follows:

S/NS Satisfactory/Not-Satisfactory: A graduate student, with the approval of the Graduate Program Coordinator or Supervisory Committee Chairperson, may elect to be graded S/NS in any numerically-graded course for which he or she is eligible. If a student does not elect this, then he/she will be graded on a numerical basis. If approval is granted the student must elect the S/NS option either when registering or no later than the end of the seventh week of the quarter. Although the S/NS grade option can be elected through the 7th week the quarter, a \$20 fee is charged beginning the 8th day of the quarter, with NO EXCEPTIONS. The instructor shall submit a numeric grade to the Registrar, who shall convert grades of 2.7 and above to S and grades lower than 2.7 to NS. Student register through MyUW, and select the Grade Option box to select S/NS grading option.

Master's of Science Degree Program

The department of Pharmaceutics offers an entry-level M.S. degree on a restricted case-by-case basis. Entry into the program is granted only with prior sponsorship by a Pharmaceutics faculty member and approval of the faculty. The program of course work is divided into four components: prerequisites which define the level of entry into the program; an abbreviated core M.S. program listed below; seminars and literature review; and research.

1) Prerequisites

- Differential Calculus (MATH 124; 5 cr)

Candidates are accepted into the program on the condition that any deficiencies in course requirements are rectified by the end of the first academic year.

The Department of Pharmaceutics implemented a new curriculum beginning in Autumn Quarter 2019, with transition beginning Spring 2019. Please see **Appendix G** for the typical schedule of core requirements.

2) Core Courses (revised curriculum) – beginning Autumn 2019

This applies to students who entered the MS program beginning in or later than Autumn Quarter 2019 (with transitional options for those entering in 2018). The didactic pharmaceuticals core consists of the following disciplines and specific courses:

The M.S. degree entails an accrual of minimum 41 credits, of which 20 must be graded (the graded credit must be from graduate courses of 500 level or above). In addition, 26 credits must be derived from courses that do not include independent study, seminar, journal club and thesis study. Of the 41 required course credits, 20 are derived from the following “core” courses that are intended to give the student the minimum knowledge base in the field of pharmaceutical sciences.

- PCEUT 502: Drug Disposition Science (2 cr)
- PCEUT 505: Concepts in Pharmaceutical Sciences I (2 cr)
- PCEUT 506: Concepts in Pharmacokinetics (2 cr)
- PCEUT 507: Advanced Pharmacokinetics (3 cr)
- PCEUT 532 Clinical Pharmacokinetics (4 cr)

Additional didactic core courses:

- MEDCH 501: Medicinal Biochemistry (3 cr)
- BIOST 511: Medical Biometry I (4 cr)

(In addition, see Seminars & Lit Review, Research, and Thesis, below)

3) Core Courses (prior curriculum) – through Spring Quarter 2019

This applies to students who entered the MS program in or prior to Autumn Quarter 2018. The didactic pharmaceuticals core consists of the following disciplines and specific courses:

The M.S. degree entails an accrual of 44 credits, of which 26 must be graded (the graded credit must be from graduate courses of 500 level or above). In addition, 26 credits must be derived from courses that do not include independent study, seminar, journal club and thesis study. Of the 44 required course credits, 26 are derived from the following “core” courses that are intended to give the student the minimum knowledge base in the field of pharmaceutical sciences.

- PHCOL 510, 511, 512, 513 (choose 3 out of 4), General Pharmacology (2 cr each/6 cr total)
- PCEUT 506, Pharmacokinetic Principles (4 cr)
- PCEUT 531, Pharmaceutical Formulation: Principles and Dosage Forms (4 cr)
- PCEUT 505, Drug Formulation (2 cr)
- PCEUT 532, Clinical Pharmacokinetics (4 cr)

One of the following advanced pharmacokinetics classes, depending on its relevance to the student's thesis work and in consultation with the student's advisor:

- PCEUT 501, Advanced Pharmacokinetics (5 cr)
- PCEUT 502, Pharmacokinetics of Drug Metabolism (4 cr)
- PCEUT 503, Drug Transport and Delivery (5 cr)
- PCEUT 600, 700 (variable credits)

The above core courses are considered essential for all students in the M.S. program. It is unlikely that any of these courses would be waived, except for students entering with previous graduate-level course work in the required areas. In addition, all students must attend the following training sessions, preferably in the first academic year: Chemical Safety, Biological Safety, and Bioethics training. Radiation Safety, Human Subjects (CITI course highly recommended) and Animal Care may also be required at some point, if relevant to the student's thesis research.

3) Seminars and Literature Review

- PCEUT 520: Seminar (1 cr/quarter; 3 qtr/year until graduation)

M.S. students are not required to make a presentation, but they may take the opportunity to present for the experience.

- PCEUT 583: Journal club (1 cr/quarter; 3 qtr/year until graduation)

M.S. students are expected to make 2 presentations each year (beginning at the start of their 2nd year, until graduation).

4) Research

- PCEUT 600, 700 (variable credits)

Entry-level M.S. students will have selected an advisor by mutual agreement before starting the program. Terminal track M.S. students will have selected a thesis advisor at the end of spring quarter in their first academic year (See Appendix A1 for details). Students must begin their laboratory research by summer quarter of their first academic year in the lab of their advisor. Due to the course work and research demands of the program, most students may find that after-class and off-hours are the best and most productive time for their laboratory research. (See Appendix A1b for details).

Entry-level M.S. students will sign up for PCEUT 600 (lab research rotation, variable credit) during their first year in the program and PCEUT 700 thereafter until the defense of their thesis, in order to meet the research requirements of the program and the Graduate School. Terminal-track M.S. students will enroll in PCEUT 700 for research credit (variable number) until the defense of their thesis.

5) Master's Thesis

M.S. students are required to submit a Master's thesis. The content of the thesis should be a research summary of his/her laboratory project. Under special circumstances and with the consent of the advisory committee, a comprehensive review of a relevant area of pharmaceutical research may be permitted. Each student should work closely with his/her major advisor in order to identify and develop the content of the Master's thesis and the composition of the supervisory committee (see **Appendix C** for additional details).

6) Other

Students admitted into the M.S. program can formally apply to the Ph.D. program only after successful completion of the first year in the M.S. degree program. The application will be reviewed competitively with other Ph.D. applicants.

APPENDIX B

Ph.D. Program in Pharmaceutics

Cumulative Examination

All graduate students in the Department of Pharmaceutics are expected to take and pass a series of cumulative exams (PCEUT 599, 1 cr). Successful completion of the cumulative exams is required prior to taking the General Examination. **[Please note: PCEUT 599 Cumulative Exam no longer required as of Spring 2019. Students entering the program Autumn 2018 or later are not required to complete PCEUT 599.]**

1) Format

- The cumulative exams will build on coursework, journal club and seminars that the students complete during their 1st year in the graduate program. Prior to beginning the cumulative exams, the students will be provided with the names of the faculty members who will submit questions for specific exams. The faculty members may assign additional study material and topics of emphasis for their cumulative exam question. The students should contact each faculty member to request information about the focus areas for the cumulative exam question, topics to review, or additional study material.
- Exams will be scheduled once per month beginning Spring quarter for students in their 1st academic year. Up to 5 exams, will be scheduled. For each exam, 2 questions will be provided and students will answer both questions. Each exam will be approximately 4 hours in length and administered when mutually convenient for students, so as not to overlap with coursework or other obligations. Students should provide a comprehensive written answer to each question.
- Students will continue taking the exams until having passed 5 questions to satisfy the cumulative exam requirements. If students do not pass 5 questions during the scheduled exam period, the faculty will discuss alternative plans (e.g., student will be redirected to the MS track, independent tutorials will be held with the student prior to a final cumulative exam, etc.).

2) Grading

- Grades for the exam. Each question will be worth 50 points and will be graded separately. A passing grade for each question is 60% or above. Graded exams will be returned within 10 days and a review/discussion session to discuss the correct answer (~ 1 hr) will be offered by the grading faculty. Students are responsible for coordinating the review with each faculty member.
- Grades for the course will be assigned at the completion of the cumulative exam period (i.e., AUT quarter, Yr 02). A student who has passed 5 exams will receive credit (CR) on their transcript. A student who has not passed questions

after 10 attempts with receive no-credit (NC), necessitating an “alternative plan” as discussed above.

APPENDIX C

Ph.D. Program in Pharmaceutics

Role of the Doctoral Supervisory Committee

1) General

Each student working toward a graduate degree at the University of Washington should be guided by a faculty supervisory committee. This committee serves an important evaluative and mentoring function for the student throughout their graduate career. While the research supervisor (and the Doctoral Supervisory Committee) will make critical decisions on a student's research direction, it is the student's responsibility to drive the project.

2) Composition and Role of the Supervisory Committee

The student, with consultation from their advisor, will identify appropriate Graduate Faculty members in the student's field of study who can effectively mentor the student as they seek the PhD degree. The student should contact each potential committee member and secure their agreement to serve in this capacity. Once secured, the names of committee members will be communicated to the Graduate Program Advisor, who will complete the appointments through the MyGrad Program. Members of the supervisory committee may be replaced, with approval of the Department Chair and notification of the Graduate School.

The doctoral supervisory committee must have a minimum of four members, at least three of whom (including the Chair and the Graduate School Representative or GSR) must be members of the Graduate Faculty with an endorsement to chair doctoral committees. A majority of the committee must be members of the Graduate Faculty. The GSR must be a productive scholar in their own research area that may differ from that of the student's dissertation project. The GSR cannot hold a faculty appointment in the student's home department or have a conflict of interest that would prevent them from providing a fully independent evaluation of the student's performance and the fairness of the exam. Generally, faculty members with primary, joint, adjunct or affiliate appointments in the student's degree offering unit or the committee chair's department are not eligible to serve as a GSR. Exceptions to this rule can be found on the Graduate School website at: <https://grad.uw.edu/policies-procedures/doctoral-degree-policies/graduate-school-representative-gsr-eligibility/> The remaining members must be identified by the student's appointing department or program as productive scholars in the student's major field and/or subfields.

The Chair of the supervisory committee is generally the student's primary Advisor. The committee Chair must be able and willing to assume principal responsibility for advising the student, should have adequate time available for this work, and should expect to be accessible to the student. Emeritus faculty may serve as Chair if they meet the above conditions. In special circumstances, Co-Chairs may be appointed when two Graduate Faculty members serve with equal importance on a student's supervisory committee and equally share responsibility for the student's

progress. Affiliate faculty are normally not assigned to Chair positions; however, under special circumstances, exceptions can be made by petition.

Responsibilities of the voting members of the doctoral supervisory committee include the approval of a course of study that will fulfill the general course requirements of the student's major and supporting fields, review and approval annually of the Individual Development Plan, conducting the student's General Examination and, when appropriate, recommending advancement to Candidacy. The doctoral supervisory committee approves the Candidate's dissertation proposal and guides the student in carrying out appropriate research for the dissertation.

At least four members of the committee (including the Chair, GSR, and one additional Graduate Faculty member) must be present at both the General and Final Examinations.

3) Timing of Supervisory Committee Meetings

It is suggested though not required that the doctoral supervisory committee be established at least four months (Memo 13 from the Graduate School) before the request for the intended date of the General Examination is submitted to the Graduate School. As a departmental requirement, the supervisory committee should be formed early in a student's 2nd year and should meet at least once before the General Exam is scheduled. They must meet at least once a year, although every 6 months is recommended (not required) until the student's final exam.

APPENDIX D

Ph.D. Program in Pharmaceutics

Preparation for the General and Final Examinations

1) General

The student should take their general examination when they have a clear understanding of the background, hypotheses and aims of the entire project and have obtained sufficient data for the committee to assess the student's capacity for innovative scholarly work. The student is also expected to understand and explain those aspects of their didactic training in the pharmaceutical sciences that are relevant to their thesis project.

The General Exam consists of 2 parts: (a) Submission of a Written Proposal of the student's research and (b) Oral Ph.D Candidacy Examination

2) Instructions for Preparing the General Examination Proposal

The purpose of the written proposal is to train the student in scientific writing, to present the framework of the student's thesis project and to provide the necessary details of the student's thesis research to their committee. The student should craft the proposal to present relevant background and a focused research plan. For each examination the written proposal should be submitted to the supervisory committee no later than one week before the scheduled examination. Failure to prepare the proposal in time may result in rescheduling of the examination or a request for additional writing requirements.

The proposal should be written in a format similar to an NIH grant application. It should be maximum 10 pages in length, 12-point font (Times New Roman) or 11-point font (Arial), with 0.5 inch margins and 1.0 line spacing not including abstract and bibliography. The recommended pages should be used as follows:

- a. Abstract: The abstract should be maximum 250 words and describe the background, specific hypotheses and aims, preliminary results and methods used and the experimental plan for the thesis research.
- b. Specific aims: The specific aims should be 1 page in length and clearly state the detailed research hypotheses for the dissertation research. The specific aims should be numbered and state the objectives of the experimental research conducted by the student. A brief description of how each specific aim will be addressed should be included.
- c. Background and significance: This part of the proposal should be no more than 3 pages long and provide an in-depth presentation of the critical background for the research project. It is important that the student captures both the broad perspective of the field as well as the detailed evidence available to support their research hypotheses. The student is strongly encouraged to use tables and figures to summarize data from

literature. The background should not include the student's own experimental results that will become part of the thesis.

- d. Experimental plan: For the experimental plan, the student should describe in 3 pages a relatively detailed plan of the experimental conduct of their dissertation research. It is important that the extent of experiments planned is described for each aim to allow the committee to reach a conclusion of the feasibility and likelihood of success of the proposal.
- e. Preliminary data: This section can be up 3 pages and organized around the experimental plan of the project. For each aim, the specific experiments that demonstrate applicability of a selected technique or support the original hypothesis should be presented. The purpose of the preliminary data is to demonstrate that the student has accrued the skills and techniques necessary to complete their dissertation and to convince the committee that the proposed hypotheses are viable and can be tested. Experimental methods should be described briefly to provide the necessary information required to understand the results. The student is encouraged to present their data in graphical and tabulated formats and be prepared to answer specific questions pertaining to the design and conduct of these experiments.
- f. References: References should be included at the end of the proposal and be written in an appropriate style that includes, authors, title of the manuscript or reference, journal of publication, volume, page numbers and year of publication.
- g. The student is encouraged to submit their proposal to the committee with a cover letter that describes their own view of their progress in the program and milestones achieved prior to the general examination. They can also include as an attachment to the proposal any publications derived from their dissertation research, conferences attended, oral and poster presentations and other accomplishments and leadership activities.

3) Instructions and Expectations for the Oral Exam

- a. Oral presentation should be a half hour in length, providing a brief description of the thesis proposal that includes background, significance, the research plan and preliminary data. Altogether, however, the exam will take about 2 hours.

Students should expect interruptions from committee members to clarify significance of experiments, question specific aims or to ask about technical issues. Though the advisor is the Chair of the Supervisory Committee, they do not play any active role during the examination, and should only provide clarification or comment if asked by members of the committee.

Presentation must demonstrate thorough understanding of field of research to include topics covered in core curriculum and to be familiar with current literature in areas related to the thesis research.

The Department encourages the committee to conduct the examination in a critical way that will ensure that the student is on track to graduate and will continue to excel. If the committee feels that the student is below average in any way, the committee can vote to fail the student with one of two recommendations. They could allow a reexamination after corrective action has been taken, which may consist of one or more of the following:

- student takes specific electives
- student meets with committee members more frequently than required
- student remediates deficiencies in knowledge areas via self-study

The committee could also recommend termination in the program with the possibility of a terminal Master's degree.

- b. Special role of the GSR: The GSR represents the broad concerns of the Graduate School with respect to high standards of scholarly performance, ensuring that the student's mastery of the subject matter is broad and comprehensive. The GSR is a voting member of the committee and must attest to the validity of the examination, must indicate approval of the process by which the examination was conducted, must ensure that the student is treated in an unbiased manner, and must represent the Graduate School in ensuring university-wide standards of scholarly performance.

In preparation for the general and final examination, students should see that the GSR receives all necessary materials (i.e., copies of the dissertation proposal, the dissertation, etc.) in a timely manner. Changes in the appointment of the GSR are made only under extenuating circumstances.

4. Final Examination and Submission of the Dissertation

- a. General: Preparation for the final exam begins with a consensus of the student advisory committee that the research that has been completed (or is soon to be) and is of sufficient scope and quality to constitute a defensible dissertation. At that time the student should confirm the availability of their Reading Committee, create a timeline for writing the dissertation, and identify a suitable time window for scheduling a defense.
- b. Reading committee: The reading committee, consisting of at least three voting members of the supervisory committee, should be formed shortly after a successful general examination. One member of the reading committee must be the Chair of the advisory committee. The reading committee is appointed to read and approve the dissertation. When the reading committee has read an entire draft of the dissertation and the voting members of the doctoral supervisory committee agree that the candidate is prepared to take the Final Examination, the student will schedule the Final Examination.
- c. Final examination: The final examination consists of a defense of the dissertation. By Department policy, it begins with a public oral presentation that lasts approximately 1 hr, with 45-min devoted to research topics selected from

the written dissertation and 15-min for questions from the general audience. At the Final Examination, the dissertation is evaluated, and if a majority of the voting members of the supervisory committee members agree that the evaluation is positive, the doctoral supervisory committee recommends to the Dean that the degree be awarded. If members of the doctoral supervisory committee do not agree with the majority recommendation concerning the examination, a minority recommendation should also be forwarded to the Dean.

- d. Submission of dissertation to Graduate School: The dissertation must conform to the requirements of the Graduate School: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/>. It will typically consist of a background chapter, three or more research chapters (often tied to the original specific dissertation aims) and a summary chapter, as well as references, table of contents and other stand-alone information required by the Graduate School. There are no other Departmental requirements. The student must be registered for PCEUT 800 credits during the academic quarter in which the completed dissertation is to be submitted. The dissertation must be submitted in accordance with the UW Graduate School deadlines, found here:

<https://grad.uw.edu/for-students-and-post-docs/degree-requirements/dates-and-deadlines/>

APPENDIX E

Scholarships and Awards

1) Department Awards

The Department of Pharmaceutics offers awards to its graduate students that are intended to recognize outstanding scholarly activity during the time that they are enrolled in our programs. The current Awards Committee Membership is: Ed Kelly (Chair), Qingcheng Mao, Bhagwat Prasad, and Nina Isoherranen.

Bradley Fellowship: This endowed award honors the memory of William F. Bradley, a urologist with a life-long interest in pharmacokinetics and renal drug disposition. It is a merit based scholarship that provides tuition and stipend support for students in the doctoral program. It also provides funds to be used at the recipient's discretion to "further the goals of their graduate training." Preference is given to students who demonstrate outstanding academic achievement. Students in the 2nd year or more of the program are eligible. Applications are due November 1 (contact Graduate Program Advisor for application instructions).

Ji-Ping Wang Fellowship: This endowed award honors the memory of Ji-Ping Wang, a graduate of the School's Bachelor of Pharmacy and Master's of Science in Pharmaceutics. It is a merit based scholarship that provides tuition and stipend support for students in the doctoral program. It also provides funds to be used at the recipient's discretion to "further the goals of their graduate training." Preference is given to international students who demonstrate outstanding academic achievement. Students in the 2nd year or more of the program are eligible. Applications are due November 1 (contact Graduate Program Advisor for application instructions).

Rene Levy Fellowship: This endowed award honors the academic contributions of René H. Levy, Professor emeritus and the first Chair of the Department of Pharmaceutics. It is a merit based scholarship that provides tuition and stipend support for students in the doctoral program. It also provides funds to be used at the recipient's discretion to "further the goals of their graduate training." Preference is given to students who demonstrate outstanding mentoring and instructional capabilities. Students in the 2nd year or more of the program are eligible. Applications are due November 1 (contact Graduate Program Advisor for application instructions).

Danny Shen Travel Award: This endowed travel award honors the academic accomplishments of Danny D. Shen, Professor emeritus in Pharmaceutics and former Chair of the Department of Pharmacy. It is a merit-based award that supports the attendance of graduate students to scientific meetings; this includes air travel, housing accommodations and incidental costs of attendance. Preference is given to students who will present their graduate research during oral or poster sessions. Applications are due November 1 and June 1 (contact Graduate Program Advisor for application instructions). Award must be used within one year of receipt.

2) School Awards

Outstanding Dissertation Award: The UWSOP Outstanding Dissertation Award celebrates a graduate student who has conducted outstanding research at the doctoral (PhD) level. The recipient will be awarded an honorarium of \$500 at our Commencement Ceremony.

Nomination: Each of the three departments' Graduate Program Directors will manage their own department's nomination, taking into consideration the criteria (see below) and make a recommendation to the selection team for consideration. Due May 1.

Criteria: The nominated dissertations should represent original work that makes a significant contribution to the discipline. Both methodological and substantive quality should be judged. To be eligible, each applicant must be a graduate student in good academic standing at the UW and be registered during the academic year in which the award is given. Nominations will be evaluated on the following:

- a. *Innovation* The degree of innovation, creativity and insight shown by the author.
- b. *Scope* The scope and importance of the work to the department and the field.
- c. *Writing* The effectiveness of the writing.

Application material

- a. Dissertation Committee Chair letter of recommendation.
- b. Abstract of dissertation.
- c. Graduate student nominee's CV.

Graduate Student Leadership Awards: The UWSOP Graduate Student Leadership Awards honors one graduate student in each of our three departments who has demonstrated outstanding leadership and service that has had a positive impact on the School of Pharmacy, UW, the Northwest community, scientific and/or professional community. Each recipient will receive an honorarium of \$500 at the School of Pharmacy's Graduate Programs' Welcome Back Reception at the beginning of each Autumn Quarter or at our Commencement Ceremony.

Nomination: The award is open to all School of Pharmacy graduate students, i.e., those enrolled in our PhD or MS programs. Faculty, staff, and graduate students may submit nominations (including self-nominations). There will be a total of three awards annually, i.e., one for each department. Submit to Graduate Program Director by May 1.

Criteria: Demonstrated outstanding scientific and/or professional leadership and service as a graduate student at UW. To be eligible, each applicant must be a graduate student in good academic standing at the UW and be registered during the academic year in which the award is given.

Application material:

1. Two letters of reference:

- a. One letter about the nominee's general leadership abilities, ideally from someone who can evaluate their specific leadership qualities.
 - b. A second letter that describes the impact of the nominee's leadership efforts.
2. A letter from the nominee that describes a specific contribution s/he has made to the School of Pharmacy, UW, the Northwest community, the scientific or professional community, and showcases how this effort produced a positive impact.
3. Graduate student nominee's CV.

Rodney J Y Ho and Lily S Hwang-Ho Award: This award is supported by an endowed gift from Rodney J.Y. Ho and Lily S Hwang Ho. Recipients shall be graduate and/or professional students in the School of Pharmacy pursuing biomedical and biopharmaceutical research and entrepreneurship excellence and selection shall be based on academic merit. The award can be used at the discretion of the recipient to further training in the graduate or professional programs. There is no formal application process. Requests for nominations are sent out from the Dean's office to School faculty; nominations are solicited in Spring quarter.

T32 Pharmacological Sciences Training Program Fellowship: The Ruth L. Kirschstein National Research Service Award (NRSA) is funded by a T32 grant from the National Institutes of Health that supports pre-doctoral graduate education in the Departments of Medicinal Chemistry, Pharmaceutics and Pharmacology at UW. It is awarded based on merit to promising predoctoral students who are obtaining individualized, mentored research training from outstanding faculty sponsors while conducting dissertation research in pharmacology relevant to the mission of NIGMS. All students in Years 1-3 in graduate programs of Pharmaceutics, Medicinal Chemistry and Pharmacology are eligible. It provides the recipient with tuition and stipend support, as well as travel support, for a period of 2 years. Applications are due about the end of May (varies year-to-year); calls for application are circulated to all students by e-mail.

3) UW Health Science Awards

Magnuson Scholarship: This award honors the late U.S. Senator Warren G. Magnuson, in whose name the program was established, who was committed to improving the nation's health through biomedical research and was instrumental in establishing the National Institutes of Health, Medicare, and Medicaid during his long career in the U.S. Senate. It recognizes one graduate student in each of the six UW Health Sciences schools who demonstrates excellent academic performance and outstanding potential for research in the health sciences. The recipient receives a cash award of \$30,000 that can be used at their discretion to support their graduate education. Preference is given to a student preparing for or actively engaged in a career pathway related to diabetes research. Within the School of Pharmacy, nominations are first screened by participating department faculty (i.e., Awards Committee in Pharmaceutics) and then the UWSOP Executive Committee, and then submitted to the Health Sciences Magnuson Scholarship awards committee. The nomination from UWSOP is due at UW Health Sciences in February.

TL1 Translational Research Training Fellowship: This merit-based award is made possible by a UL1 grant from the National Institutes of Health that funds the UW Institute of Translational Health Sciences. It supports mentored research training programs in translational science for predoctoral students from the UW Health Sciences Schools. The TL1 program creates a cross-disciplinary community of emerging researchers and provides them with specific training, career development opportunities, and team science skills to help them function effectively within translational science teams. All students in the Pharmaceutics doctoral program are eligible. It provides the recipient with tuition and stipend support, as well as travel support, for a period of 1 year, but can be renewed. Applications are due Oct 31:

<https://www.iths.org/education/graduate/tl1/>

Other NIH Training Programs: There are numerous other T32 NRSA training grants besides the PSTP at the University of Washington. Each has specific eligibility criteria that students in the Pharmaceutics doctoral program might meet. Foremost is that the student mentor must be a member of the training program faculty (invited membership only). One example is the Pathology & Toxicology training program in which Dr. Ed Kelly participates (Kelly). Interested students should speak with their mentors to ascertain what opportunities are available and how a student would apply.

4) University Awards

Much of the descriptions presented below are abstracted from the associated websites.

UW ARCS Fellowship: The Achievement Rewards for College Scientists (ARCS) Fellowship is supported by a group of dedicated women committed to funding graduate education and research in the sciences. The Seattle Chapter and its volunteers support graduate education at UW. The UW Graduate School manages the selection process in conjunction with the department heads in eligible UW graduate programs (includes Pharmaceutics): <https://grad.uw.edu/about-the-graduate-school/support-the-graduate-school/achievement-rewards-for-college-scientists/>

The goal of ARCS is to bring the finest scientific minds together on our campus and foster the synergy that leads to innovation and discovery. There is no direct application process; all students who apply to the Pharmaceutics graduate program are eligible and will be considered based on the merits of their application. Selection of Departmental candidate(s) will be made by its Awards Committee and forwarded for consideration (and competition) by the UWSOP Executive Committee. The final decision to offer an ARCS fellowship to a graduate program applicant is made by the Graduate School.

Key Facts

- i) The value of an UW ARCS Fellowship is \$17,500, payable over three years. Current fellows receive \$7,500 the first year, \$5,000 the second year and \$5,000 the third year. The larger amount the first year includes a recruitment

bonus to mitigate the cost of relocating and beginning a new career as a graduate student.

- ii) 32 UW graduate programs in six schools/colleges are eligible to receive ARCS Fellowships. Eligible departments offer awards to prospective graduate students; students may not directly apply for these fellowships.

Graduate Student Conference Travel Award: This award is offered by the UW Graduate School. Interested students should visit the Graduate School website for a complete description of the application, review and awards process:

<https://grad.uw.edu/graduate-student-funding/funding-information-for-departments/awards-and-funding-resources/graduate-student-conference-travel-awards/>

Definition and policy

- Graduate student travel awards are available to assist graduate students with travel fares to major national or international conferences so they may present papers or posters, or to serve as invited speakers. Students in the arts may receive funding to give invited performances or installations.
- Each student must be confirmed as a presenter before funds are requested, and each student must be in a degree program and enrolled in courses at the time of travel. (If the conference is in summer and the student is not enrolled, then he/she must have been enrolled in spring and registered for autumn classes at the time of request in order to be eligible.)
- Funds may be used only for airfare or fares supporting alternative modes of transportation (e.g., mileage, taxis); they may not be used for registration, hotels, food or other travel expenses.
- Individual awards are limited to one every other year.
- Priority will be given to graduate students who do not have other significant funding available for the travel and/or who have not received general graduate student conference travel funding from the Graduate School in the past.

Maximum award amounts

- \$300 for domestic travel
- \$500 for international travel

Deadlines

- iii) Requests may be submitted at any time prior to the requested trip but no later than the deadline listed for each travel time frame (see weblink for details). Requests will be considered during the appropriate time frame and awards will be made shortly after the deadline.

GSFEI Top-Scholar Award: The Graduate School's primary goal for the Top Scholar Awards (TSA) offered by the UW Graduate School is to help programs attract outstanding students to the University of Washington by partnering with units to build

competitive financial packages for their top student prospects. Here is the link: <https://grad.uw.edu/graduate-student-funding/funding-information-for-departments/awards-and-funding-resources/gsfei-top-scholar-awards/> This program does not support continuing students already enrolled at the UW. The award provides tuition and stipend support during the first academic year. There is no specific application process; applicants to the Pharmaceutics graduate program are considered automatically and decisions made by the Awards Committee are based on the merit of the student's graduate program application. Potential awardees are notified at the time an offer to join the doctoral program is made and conferred at matriculation.

Distinguished Dissertation and Thesis Awards: The Graduate School offers on an annual basis the Distinguished Dissertation and Thesis Awards, which recognize outstanding and exceptional scholarship and research at the doctoral and master's levels. There is a general category and an entrepreneurial category. Details of eligibility and the application, review and award process can be found at the Graduate School website: <https://grad.uw.edu/for-students-and-post-docs/thesisdissertation/distinguished-dissertation-and-thesis-awards/> The deadline for applying varies from year to year, but is general in the first week of June.

5) Extramural Awards

Graduate students in the Pharmaceutics department may apply for scholarships and awards that are offered by Foundations and other Organizations outside of the UW (i.e., extramural) system. The possibilities are numerous and should be searched through the Internet. A few that are directed specifically to graduate studies in a School of Pharmacy or to STEM sciences are listed below. Note that some organizations specifically target support of individuals from minority or disadvantaged backgrounds.

Most of the descriptions presented below have been abstracted from the associated websites.

AFPE Fellowship: American Foundation for Pharmaceutical Education (AFPE) awards scholarships and grants to aspiring and current researchers and academics in the pharmaceutical sciences arena so that they may have the resources necessary to conduct novel research projects that will impact the future of healthcare and patient outcomes. The most relevant award for students in the Pharmaceutics doctoral program is the Predoctoral Fellowship in Pharmaceutics Sciences. The primary goal of the AFPE Pre-Doctoral Research Fellowship program is to positively impact patient and public health by supporting high performing students who possess the skill and aptitude to become outstanding scientists and leaders in the pharmaceutical industry, academia, and the government/nonprofit sectors. Some program information is presented below. See AFPE website for additional information and application due date. <http://afpepharm.org/index.php/contact/grants-scholarships-and-awards/>

Eligibility

- iv) Applicant must have completed at least three semesters of graduate study and have no more than three years remaining to obtain the Ph.D. in pharmaceutical sciences in a graduate program administered by or affiliated with a U.S. school of pharmacy.
- v) Applicant must be a U.S. citizen or permanent resident

Selection Criteria

Applicants are selected by the AFPE Board of Grants based on the following criteria. Selection will be made based on the application as a complete package representing the applicant's potential to contribute to the field and ultimately impact patient and public health. Components of selection include, but are not limited to, the following:

- vi) Research Plan and Experience (50%)
- vii) Academic Performance (35%)
- viii) Leadership and Character (15%)

Award

- ix) \$10,000 for one year of support
- x) The Fellowship stipend may be used for a purpose decided by the awardee and college that will enable the student to make progress in their pursuit of the Ph.D.; e.g., student stipend, laboratory supplies, books, materials, travel, etc.

PhRMA Foundation Fellowship: This program provides up to two years of stipend funding to support full-time advanced students who will have completed most of their pre-thesis requirements (at least two years of study) and be engaged in thesis research as PhD candidates by the time the award is activated:

<http://www.phrmafoundation.org/2018-awards/>

Relevant facts

- xi) Fellowships range from \$20,000 to \$25,000 per year.
- xii) Applications will be accepted for a minimum of one year and a maximum of two years of stipend support. Pre-Doctoral Fellowships are designed for students who expect to complete their PhD requirements in two years or less from the time the fellowship begins.
- xiii) Students just starting graduate school should not apply. An applicant must be a full-time, in-residence PhD candidate. The department chair or graduate officer is expected to verify the applicant's doctoral candidacy.
- xiv) Fellows are expected to devote full time (including summers) to their research. The awards may not be used to supplement funds from other fellowships, traineeships, or assistantships, unless necessary to make stipend levels compliant with institutional policy. The goal of the program is to assist in the candidate's pre-doctoral training. Pre-Doctoral Fellowships should not be seen as a way to fund a research project.

NIH Predoctoral Individual NRSA Fellowship: The purpose of the F31 Kirschstein-NRSA program is to enable promising predoctoral students with potential to develop into productive, independent research scientists, to obtain mentored research training while conducting dissertation research. The proposed mentored research training must reflect the applicant's dissertation research project and is expected to clearly enhance the individual's potential to develop into a productive, independent research scientist. Standard NIH dates apply: <https://researchtraining.nih.gov/programs/fellowships/f31#>

Applicants for the F31 must be candidates for the PhD degree and have identified a dissertation research project and sponsor(s). It is expected that the mentored research training experience will provide:

- A strong foundation in research design, methods, and analytic techniques appropriate to the proposed dissertation research;
- xv) The enhancement of the applicant's ability to conceptualize and think through research problems with increasing independence;
- xvi) Experience conducting research using appropriate, state-of-the-art methods, as well as presenting and publishing the research findings as first author;
- xvii) The opportunity to interact with members of the scientific community at appropriate scientific meetings and workshops;
- xviii) Skills needed to transition to the next stage of the applicant's research career;
- xix) The opportunity to enhance the applicant's understanding of the health-related sciences and the relationship of the proposed research to health and disease.

The Kirschstein-NRSA Individual Predoctoral Fellowship (F31) program may provide up to five years (typically 2-3 years) of support for research training which leads to the PhD or equivalent research degree, the combined MD/PhD degree, or another formally combined professional degree and research doctoral degree in the biomedical, behavioral, or clinical sciences.

APPENDIX F

Student Grievance Procedures

The Department of Pharmaceutics follows the School of Pharmacy and University of Washington's Scholastic Regulations, Student Governance and Policies (see UW Policy, Student Governance and Policies, Chap 110: <http://www.washington.edu/admin/rules/policies/SGP/ScholRegCH110.html>) when addressing a student appeal of a course grade or exam decision.

1) Appeal of an Exam Grade

A student who believes that an instructor erred in the assignment of a grade, or who believes a grade recording error or omission has occurred, will follow these steps to resolve the matter:

- a. The student should first discuss the matter with the instructor before the end of the following academic quarter.
- b. A student who is not satisfied with the instructor's response may submit, no later than 10 class days after her/his discussion with the instructor, a written appeal to the Chair of the department with a copy of the appeal to the instructor. This time may be extended by the Chair in exceptional circumstances, such as the situation in which the student did not learn of the appeals process deadlines in time. If the Chair has a conflict of interest, the appeal will be heard by a Chair's designee pre-determined from among the Department's faculty.
- c. Within 10 calendar days of receipt of the appeal, the Chair will consult with the instructor to determine whether the evaluation of the student's performance was fair and reasonable or whether the instructor's conduct in assigning the grade was arbitrary or capricious.
- d. If the Chair determines that the instructor's evaluation of the student's performance was not arbitrary or capricious, the Chair notifies the student that the appeal is denied and that the assigned grade is final.
- e. If the Chair believes the instructor's conduct in assigning the grade was arbitrary or capricious, the Chair will request that the instructor revise the grade.
- f. If the instructor declines to revise the grade, the Chair, with the approval of the voting members of his or her faculty, shall appoint an appropriate member, or members, of the faculty of that department to evaluate the student's performance and assign a grade. The Chair will inform the Dean and Provost of this action. The department's decision will be final.
- g. The Dean will refer the matter to the Associate Dean for Assessment, who will review the Chair's decision to ensure that the appeal process was followed correctly.
- h. Once a student submits a written appeal, this document and all subsequent actions on this appeal shall be recorded in written form in a school file residing with the Associate Dean for Assessment.

2) Unfair Treatment

Students who feel that they have been subjected to unfair treatment in the administration of departmental academic policies (including those described in this document) may seek resolution on the Academic Grievance Procedure outlined in Memo 33 from the Graduate School: <https://grad.uw.edu/policies-procedures/graduate-school-memoranda/memo-33-academic-grievance-procedure/> Initiation of an informal conciliation process or formal complaint must occur within 3 months of the date of the incident. A brief description of the process is presented below. The student is referred to Memo 33 for further details. A brief description is provided below.

Informal Conciliation. Students who wish to challenge a course grade should first attempt to resolve the issue informally with the faculty or staff most closely involved. If they are not satisfied with the outcome, they can bring the issue to the department Chair for informal conciliation, who will facilitate further discussion between the implicated faculty or staff person and student. If the grievance is still not resolved, they may request that the Dean of the School of Pharmacy be engaged for additional informal conciliation. If they remain dissatisfied, they may request assistance from the Graduate School for another round of informal conciliation, typically led by an Associate Dean. They may also involve the Office of the Ombud.

Formal Complaint. If a student is not satisfied with the outcome of informal conciliation, they may file a formal complaint within 10 days of the conclusion of the attempted informal conciliation process. Formal complaints will be handled, as described in Memo 33 from the Graduate School. At a minimum, it will involve formation by the Graduate School of an Academic Grievance Committee, comprised of both UW graduate students and faculty outside of the Pharmaceutics department.

APPENDIX E

Quick References for Student Life

1) General

MyUW

<https://my.uw.edu/>

Main portal for variety of student-specific information as well as campus resources; requires login with UW NetID.

UW Student Guide

<http://www.washington.edu/students/>

University policies, academic resources, registration, housing, financial aid, health care and counseling, transportation, etc.

UW Division of Student Life

<http://www.washington.edu/studentlife/>

Student resources and information, including transportation, health and safety, campus life, diversity and disability services, financial services and more

UW Campus Operator

206-543-2100

2) Health, Safety & Emergency Management

UW Alert

<http://www.washington.edu/safety/alert/>

- Receive notifications of emergencies or crisis situations that may disrupt the normal operation of the UW.
- Students, faculty and staff can subscribe to UW Alert and receive messages immediately via email, text message, Twitter, etc.
- Messages are also posted on the UW website, and may be broadcast from loudspeakers or within buildings as needed.

UW SafeCampus

<http://www.washington.edu/safecampus/>

Preventing violence is a shared responsibility in which everyone at the UW plays a part. The SafeCampus website provides information on counseling and safety resources, University policies, and violence reporting requirements that help us maintain a safe personal, work, and learning environment.

- Urgent and Imminent Threats: Always call 911 if you or others need assistance from police, fire, or emergency medical personnel.
- Potential or Suspected Threats: 206-685-SAFE (206-685-7233)
- Husky NightWalk (UW safety guards to walk with you): 206-685-WALK (206-685-9255)

- Violence Prevention and Response Training: free 50 minute training workshops, open to students, faculty and staff. Learn to recognize concerning behaviors and how to respond in order to prevent violence in your workplace and on campus.

UW Police

<http://police.uw.edu/>

Emergency: 911

Non-Emergency: (206) 685-UWPD (8973) Anonymous Tips: (206) 685-TIPS (8477)

Business: (206) 543-0507

Email: uwpolice@uw.edu

Address: 1117 NE Boat St., Seattle, WA 98105

The University of Washington Police Department website includes information about services and resources, including but not limited to:

- Sexual assault
- Domestic and relationship violence
- Victim advocacy
- Crime prevention tips
- Bike registration
- Electronics registration
- Rape Aggression Defense (RAD)

Student Health Insurance

Students are responsible for obtaining their own health care coverage. For more information, or if you need to find health insurance, please visit the UW Affordable Care site: <http://www.washington.edu/ship/affordable-care/>

International students: Please see the International Student Health Insurance (ISHIP) site: <http://www.washington.edu/ship/international-student-insurance-health-plan/>

UW Health and Wellness (part of the Division of Student Life)

<http://depts.washington.edu/livewell/>

This department in Student Life offers training and education, as well as the following programs:

Suicide Intervention Program

<http://depts.washington.edu/livewell/suicide-intervention/>

xx) Phone: (206) 543-6085 (For emergent situations, call 911)

- xxi) Email: livewell@uw.edu
- xxii) Possible warning signs for suicide
- xxiii) Consultation and reaching out to students in need of support

Sexual Assault and Relationship Violence - Health and Wellness Advocate

<http://depts.washington.edu/livewell/sexual-harassment/>

Advocacy and support for students impacted by sexual assault, relationship violence, stalking, sexual harassment and other related experiences. A Health & Wellness Advocate is available to meet with students and help them understand their rights and options for reporting both on campus and in the larger community as well as assist with connecting to resources, academic advocacy, and safety planning. Health & Wellness is a **safe and confidential starting point** for University of Washington students affected by these issues.

- Call or email to make an appointment with a Health & Wellness Advocate
- xxiv) Phone: (206) 543-6085
- xxv) Email: hwadvoc@uw.edu
- xxvi) Visit website for more information including definitions, rights, resources, and safety

Campus Safety & Emergency Resources

<http://www.washington.edu/safety/>

Main portal for emergency resources and contacts, such as UW Alert, UW Police, and Environmental Health and Safety, as well as emergency information for these topic areas:

- xxvii) Claims & insurance
- xxviii) Emergency preparations by type of hazard
- xxix) Fire and evacuation
- xxx) Global travel or study
- xxxi) Hazardous materials
- xxxii) Health
- xxxiii) Information security
- xxxiv) Lab Safety
- xxxv) Safety and security guides
- xxxvi) Training

Hall Health Center

<http://depts.washington.edu/hhpccweb/?ClinicID=1>

315 East Stevens Circle (upper campus, across from the HUB)

- xxxvii) Information (206) 685-1011
- xxxviii) Patient Service Center (for appointments): (206) 616-2495

- xxxix) Consulting Nurse Service: (206) 221-2517
- xl) Hours: M-F, 8-5 (except Tuesdays 9-5)

Hall Health Center is an outpatient clinic that provides health care to University of Washington students, alumni, faculty, and staff as well as the general community. Clinics and services include primary, specialty and mental health care, as well as immunization, pharmacy, the Women's Health Clinic, radiology, STD Testing, health promotion, lab, medical records, physical therapy, measles requirement and health promotion services.

Hall Health Mental Health Clinic

<http://depts.washington.edu/hhpccweb/project/mental-health-clinic/>

315 East Stevens Circle (upper campus, across from the HUB)

- xli) Phone: (206) 543-5030
- xlii) Fax: (206) 543-4716
- xliii) In Crisis: (206) 583-1551 (M-F, 8am-5pm)
- xliv) King County Crisis Line: (206) 461-3222 (after hours and on weekends)

Services include individual and couples counseling and therapy, crisis counseling and intervention, medication evaluation and management, group therapy and support groups, campus outreach services, mindfulness medication, and after-hours care.

UW Counseling Center

<http://counseling.uw.edu/>

401 Schmitz Hall, (206) 543-1240

The UW Counseling Center provides short-term counseling, assessment, referral, and crisis intervention services to currently enrolled University of Washington students. Services include:

- xliv) Individual, couple and group counseling
- xlvi) Crisis services
- xlvii) Career counseling
- xlviii) Light therapy for Seasonal Affective Disorder (SAD)
- xliv) Biofeedback training
- l) Podcasts, online mental health screenings, and other resources

Crisis Connections

<https://www.crisisconnections.org/>

- li) **24-Hour Crisis Line:** 206-461-3222 or 866-4CRISIS, (866-427-4747)
Provides immediate help to individuals, families and friends of people in emotional crisis

- (1) Can help you determine if you or your loved one need professional consultation and can link you to the appropriate services
- (2) Primary source for linking Seattle-King County emergency mental health services
- (3) Can provide immediate language interpretation in more than 155 languages
- (4) Anonymous and confidential phone consultation

lii) **Crisis Chat:**

<http://www.crisischat.org/chat>

- (1) Lifeline CrisisChat is part of a national crisis chat network
- (2) Online chat option for someone who needs to talk, but prefers to communicate online instead of over the phone

liii) **King County 2-1-1 Community Resources Online (CRO):** Dial 2-11 or 206-461-3200 or 800-621- 4636

- (1) The most up-to-date and comprehensive database of health and human services available for all of Washington State.

3) **Policy on Sexual Harassment**

Federal Laws and UW Policy prohibit all forms of sexual harassment. Visit the UW Health and Wellness page about Sexual Harassment for more details about rules and definitions, how to and where to seek help, and more:

<http://depts.washington.edu/livewell/sexual-harassment/> Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:

- Submission to such conduct is made either an implicit or explicit condition of an individual's academic, work, living environment or participation in a University community.
- Submission or rejection of such conduct is used as the basis for a decision that affects an individual's academic, work, living environment or participation in a University community.
- The conduct is sufficiently severe, persistent or pervasive that it could reasonably be expected to create an intimidating, hostile or offensive learning or work environment, or has the purpose or effect of unreasonably interfering with an individual's academic, work, living environment, or participation in a University community. Students may also contact the following:
- Health & Wellness Advocate: hwadvoc@uw.edu
- University Complaint Investigation and Resolution Office (UCIRO): <http://compliance.uw.edu/UCIRO>

- Community Standards and Student Conduct (CSSC): <http://www.washington.edu/cssc/> or cssc@uw.edu for student-to-student conduct
- UW SafeCampus: <http://www.washington.edu/safecampus/> or 206-685-SAFE (7233)
- UW Police Department: <http://police.uw.edu/>
- **In the case of emergency, always call 911**

4) UW Suspended Operations/Inclement Weather Policy

Although not likely, it may occasionally be necessary for the University of Washington President or President's designee to temporarily suspend operations due to severe weather, natural disaster, or other emergency situations which may adversely affect the well-being of students, faculty and staff, public health, or University operations. For more information, visit the following links:

Executive Order No. 27: Suspended Operation Policy:

<http://www.washington.edu/admin/rules/policies/PO/EO27.html>

Suspended Operations – HR Policies & Procedures:

<http://www.washington.edu/admin/hr/polproc/susp-ops/>

UW Alert and local media:

<http://www.washington.edu/safety/alert/>

We recommend that students sign up for the UW Alert system for timely notification of any campus closures. UW Alert messages can be delivered via email, text message, as well as via Facebook and Twitter. Information about campus closures are typically posted as a banner on the main UW website, and notices are also sent to local television and radio stations for broadcast.

5) UW Emergency Management

<http://www.washington.edu/uwem/>

UW Emergency Management (UWEM) provides technical and custom services to all of UW, including trainings, orientations, consultative sessions, seminars and orientation materials as they relate to major campus crises, disaster and major emergency incidents. With input from their stakeholders, UWEM facilitates the development and implementation of institution-wide, department and individual protection programs and projects that promote disaster resilience, planning, training, mitigation, response, prevention and recovery for all-hazards.

A UWEM officer is available via telephone 24/7 for advice regarding urgent campus situations, at 206-765-7192.

6) Environmental Health & Safety (EH&S)

<http://www.ehs.washington.edu/>

206-543-7262 or ehsdept@uw.edu

UW Environmental Health & Safety (EH&S) addresses environmental issues in order to promote a safe educational and work place on campus. Areas covered include building and fire safety, environmental concerns, radiation, research and occupational safety, trainings, and more.

7) Disability Resources for Students (DRS)

<http://depts.washington.edu/uwdrs/>

448 Schmitz Hall, Box 355839

206.543.8924/V, 206.543.8925/TTY, 206.616.8379 (FAX), or email

uwdss@u.washington.edu

Disability Resources for Students (DRS) arranges academic accommodations for enrolled students. Services must be arranged in advance and require documentation of the disability, verifying the need for such accommodation or service. Technical and adaptive equipment is available through both the Disability Resources for Students Office and Desktop Computing Services. Additional information is available by calling (206) 543-8924 or (206) 543-8925 (Voice/TTY). To request disability accommodations to attend events, contact the Disability Services Office (DSO): 206-543-6450.

See statements on **Equal Opportunity and Affirmative Action** and **Special Accommodations**.

8) Office of Minority Affairs and Diversity

<http://www.washington.edu/omad/>

cpromad@uw.edu or (206) 685-0518

The Office of Minority Affairs and Diversity offers a range of services, including academic support programs, financial aid counseling and opportunities, and social and cultural activities. Visit their [Services for UW Students](#) page for more information.

9) Office of the Ombud

<http://www.washington.edu/ombud/>

(206) 543-6028, 339 Husky Union Building (HUB)

The UW Office of the Ombud helps individual members of the UW community explore and assert their rights and interests within the University, and works to improve the fairness and effectiveness of the University's systems and operations. The Office of the Ombud offers appointments to discuss concerns, provides a process for achieving a fair and reasonable outcome, facilitates or mediates situations when appropriate, assists in understanding options and additional resources to address concerns.

10) Other Services

UW Shuttles

<http://www.washington.edu/facilities/transportation/uwshuttles/>

The UW Shuttles system includes free transportation options for students, faculty, staff, and medical center patients and their families between key UW sites, such as the UW Medical Center, Harborview Medical Center, UW Roosevelt Clinic, UW

Tower, Fred Hutchinson Cancer Research Center, Seattle Cancer Care Alliance, and the UW South Lake Union facility. Buses are wheelchair lift equipped. Other shuttle options include Dial-A-Ride, an additional complementary shared-ride service for those with mobility limitations, and NightRide, for U-Pass holders.

Student Parent Resource Center

<http://osfa.washington.edu/wp/sprc/>

520 Schmitz Hall, stuparrc@uw.edu or 206-543-1041

The Student Parent Resource Center provides resources and financial support to students with children, including the [Childcare Assistance Program](#) which may cover costs of licensed childcare for children (ages birth to 12 years old) while enrolled in an eligible program of study.

University Book Store

<http://www.bookstore.washington.edu/home/home.taf>

The University Book Store has several branches, including the main branch on University Way, as well as a branch in the Husky Union Building (HUB). Inventory includes textbooks and other books, Husky gear, technology and software, school and art supplies, gifts, newsstand and more. The University Book Store also maintains vending machines in the Health Sciences, Suzzallo and Odegard Libraries for purchase of Scantron forms for exams, and other supplies.

Intramural Activities Building (IMA)

<http://www.washington.edu/ima/>

The Intramural Activities Building (IMA) is open to students, faculty and staff. Registered matriculated UW students who pay the Services & Activities fees may use the IMA upon presentation of their current Husky ID Card. The IMA offers extensive facilities and a variety of classes, events and intramural sports activities.

UW Housing and Food Services

<https://www.hfs.washington.edu/#gsc.tab%3D0>

hfsfino@uw.edu or 206-543-4059

The UW Housing and Food Services website includes information about Student Housing (including family housing), UW Dining locations, Husky Card services, Bay Laurel Catering, and more.

Student Legal Services (SLS)

<http://depts.washington.edu/slsuw/>

HUB 306, 206-543-6486

Student Legal Services (SLS) is a law office on the UW-Seattle campus that provides confidential legal advice and representation to current students, including a free 40-minute legal consultation.

APPENDIX G

Ph.D. Program in Pharmaceutics Typical Schedule of Core Requirements (Beginning Autumn 2019)

YEAR 01

Autumn	Winter	Spring	Summer
BIOST 511 (4 cr; A,Su)	MEDCH 501 (3 cr)	PCEUT 507 (3 cr)	
PCEUT 502 (2 cr)	PCEUT 506 (2 cr)		
PCEUT 505 (2 cr)	PCEUT 532 (4 cr)		
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
PCEUT 600: Lab Rotation (3 cr)	PCEUT 600: Lab Rotation (3 cr)	PCEUT 600: Research (3 cr)	PCEUT 600: Research (2 cr)
	*PHCOL 510, 511 (2 cr ea)	*PHCOL 512, 513 (2 cr ea)	
		** (Elective)	
		**PCEUT 501 (3 cr; even yr elective)	
		**PCEUT 503 (3 cr; odd yr elective)	
		**PCEUT 534 (3 cr, elective)	

YEAR 02

Autumn	Winter	Spring	Summer
(Elective)**	(Elective)**	(Elective)**	
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
PCEUT 600: Research (8 cr)	PCEUT 600: Research (8 cr)	PCEUT 600: Research (8 cr)	PCEUT 600: Research (2 cr)
	*PHCOL 510, 511 (2 cr ea)	*PHCOL 512, 513 (2 cr ea)	

		**PCEUT 501 (3 cr; even yr elective)	
		**PCEUT 503 (3 cr; odd yr elective)	
		**PCEUT 534 (3 cr elective)	

* PHCOL 510, 511, 512, 513: Required for training grant students; others may take as electives.

**Electives are not required, but students are encouraged to take classes that will enhance their dissertation research or career. Students must register for minimum 10 credits per quarter AUT, WIN, SPR and minimum 2 credits per quarter SUM.

YEAR 03 to Graduation

Autumn	Winter	Spring	Summer
(Elective)**	(Elective)**	(Elective)**	
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
¥ PCEUT 800: Research (8 cr)	PCEUT 800: Research (8 cr)	PCEUT 800: Research (8 cr)	PCEUT 800: Research (2 cr)

** Electives are not required, but students are encouraged to take classes that will enhance their dissertation research or career.

¥ Students who have passed their General Exam register for PCEUT 800. Before passing General Exam, continue PCEUT 600.

APPENDIX G

Ph.D. Program in Pharmaceutics Typical Schedule of Core Requirements (through Summer 2019)***

YEAR 01

Autumn	Winter	Spring	Summer
BIOST 511 (4 cr; A,Su)		PCEUT 501 (5 cr; even yr)	
PCEUT 531 (4 cr)	PCEUT 532 (4 cr)	PCEUT 533 (3 cr)	
PCEUT 505 (2 cr)	PCEUT 506 (4 cr)	PCEUT 503 (5 cr; odd year)	
	PHCOL 510, 511 (2 cr ea)*	PHCOL 512, 513 (2 cr ea)*	
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
		PCEUT 502 (4 cr; even year)	
PCEUT 600: Lab Rotation (2 cr)	PCEUT 600: Lab Rotation (2 cr)	PCEUT 600: Research (2 cr)	PCEUT 600: Research (2 cr)

YEAR 02

Autumn	Winter	Spring	Summer
PCEUT 599: CUM Exam (1 cr)		PCEUT 501 (5 cr; even yr)	
		PCEUT 502 (4 cr; even year)	
(Elective)**	(Elective)**	PCEUT 503 (5 cr; odd yr)	
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
PCEUT 600: Research (8 cr)	PCEUT 600: Research (8 cr)	PCEUT 600: Research (8 cr)	PCEUT 600: Research (2 cr)

* PHCOL 510, 511, 512, 513: students need three out of these four courses, 2 credits each, for 6 credits total.

**Electives are not required, but students are encouraged to take classes that will enhance their dissertation research or career

***Students admitted in Autumn 2017 and Autumn 2018 follow transition plan below.

Typical Schedule of Core Requirements (through Summer 2019)

YEAR 03 to Graduation

Autumn	Winter	Spring	Summer
(Elective)**	(Elective)**	(Elective)**	
PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	PCEUT 520 (1 cr)	
PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	PCEUT 583 (1 cr)	
PCEUT 800: Research (8 cr)	PCEUT 800: Research (8 cr)	PCEUT 800: Research (8 cr)	PCEUT 800: Research (2 cr)

** Electives are not required, but students are encouraged to take classes that will enhance their dissertation research or career.
 ¥ A student can sign up for PCEUT 800 once they have passed their general exam.

Transition Plan – Students Admitted Autumn 2017

Students admitted in Autumn 2017 continue in prior curriculum, with the following changes:
May take PCEUT 502 or PCEUT 503 as an elective as these students have already completed PCUET 501 and thus would meet the requirement of 2 out of 3 courses.

Transition Plan – Students Admitted Autumn 2018

Students admitted in Autumn 2018 continue in prior curriculum, with the following changes:
Eliminate PHCOL 510, 511, 512, 513 (except training grant students)
Eliminate PCEUT 599 – Cumulative Exams
Students choose either set of courses: complete PCEUT 502 and PCEUT 503 in Spring 2019; or complete PCEUT 501 and PCEUT 507 in Spring 2020.