

Section F: CURRICULUM

Curriculum Overview

The curriculum of the Pharm.D. program is designed to provide students with the scientific background and clinical skills necessary to render pharmaceutical care in an evolving health care system (See UWSOP Practice Foundations, Care Definition and Ability-Based Outcomes). Instructional methods emphasize the critical thinking and problem-solving skills necessary to ensure patient-centered and evidence-based care, promote healthy lifestyles and disease prevention, optimize therapeutic outcomes by reducing medication-related problems, enhance patients' understanding and adherence to their medication regimen, and effectively manage health system resources as part of a collaborative interprofessional team. Diverse educational goals are accommodated by the many elective opportunities offered throughout the program.

One student from 2nd and 3rd years with a 3.0 GPA or above, is invited to serve on the School's Curriculum Committee as a full voting member, until completion of the degree program. Please see Section J. Student Organization and Activities for a list of current members.

Registration

Period I registration for a new quarter begins approximately six weeks after the start of the preceding quarter. For example, Winter quarter registration begins approximately six weeks after the start of Autumn quarter. The exception is Autumn quarter registration which begins six weeks after the start of Spring quarter. Quarterly schedule planning and registration can be complex due to lab and/or conference placement, in addition to elective opportunities, and class size limits. We hope that the following information will assist you in understanding the procedures that guide this process.

- All students are guaranteed enrollment in their core classes.
- Every effort is made to allow students access to a broad selection of elective courses.
- Students opting to take electives that conflict with "break-out" sections such as labs or conferences are given first priority in registration assignments. If a student falls into this category, and wishes priority assignment, he or she must contact Vanessa Barone or Cher Espina-Nguyen, two weeks prior to the first day of Period 1 registration.
- Please note: Once registration is complete, it is important that students remain in the lab/conference section in which they are registered to comply with University regulations, and to facilitate contact in case of an emergency. This refers specifically to the following courses: PCEUT 531, CONJ 401-403, PHARM 504, MEDCH 561, PHARM 512, PHARM 509, PHARM 562 and PHARM 563-565.
- We are often asked if work schedules are a consideration in priority assignments. This is not feasible, since the majority of students hold jobs during the academic year.
- Instructor ID codes are distributed with independent research or special studies courses only. To obtain an ID code, students must meet with the instructor to discuss the course learning objectives, required assignments, the number of credits assigned, and the evaluation process. The faculty member provides the student with their Instructor ID code number and notifies the ASP Office. Please note that independent study/research courses may be graded numerically or CR/NC.

Students must register carefully for these courses, using the correct schedule line number (SLN). This is a four-digit number that should correspond with the faculty member's home department. For example, if the faculty instructor is from the Department of Pharmacy, you need to register with the PHARM prefix, SLN. Likewise, the Departments of Medicinal Chemistry (MEDCH) and Pharmaceutics (PCEUT) each have their own designated SLNs for their independent research/special studies courses.

- Entry codes are provided by the ASP Office and used primarily to manage enrollment in School of Pharmacy courses.
- Registration Lead: Cher Espina-Nguyen, cherelyn@u.washington.edu

Students who need to take core courses out of sequence (i.e., retake a core course), need to contact Cher for registration assistance. This is to facilitate coordination between core courses of different years being taken concurrently. Students should contact Cher at least two weeks prior to the date of registration.

Independent and Special Studies Courses

NOTE: The expected time commitment for Independent/Special Studies Courses is 1 credit = approximately 30 hours/quarter.

MEDCH 495 (Special Studies) CR/NC
 MEDCH 499 (Research) *Graded or CR/NC

PCEUT 598 (Independent Study/Research) *Graded or CR/NC

PHARM 595 (Special Studies) *Graded or CR/NC
 PHARM 599 (Independent Study/Research) CR/NC

*The term “graded” above, refers to “numerically graded.” Students must register in the quarter where work and evaluation is performed.

Graduation Requirements

UW PharmD students must meet the following requirements in order to graduate:

1. Complete the pharmacy core and elective credits:

Year	Core Credits	Elective Credits	Total Credits (core & electives)
Class of 2010	162	35	197
Class of 2011	168	29	197
Class of 2012	168	29	197
Class of 2013	171	26	197

Note: Up to ten of the elective credits may be earned through general elective courses, provided the courses are at the 300 level or above. The remainder of the elective credits must be earned through approved professional elective courses. Please note that elective credits earned in courses taken prior to School of Pharmacy enrollment will not be counted toward a degree requirement.

2. Earn a minimum cumulative grade-point average of 2.00 in the required core professional courses and an overall cumulative grade point average of 2.00 for all courses taken at the University of Washington. Please refer to the Grading Section for individual course and series requirements.
3. Meet the standards as outlined in the School of Pharmacy's Admissions, Retention and Graduation Standards document.

Student Responsibilities

The UW School of Pharmacy seeks to provide a supportive learning environment that fosters academic excellence, encourages continuous professional development, and inculcates the attitudes, behaviors, and ethics consistent with the profession's high standards. The curricular goals of the PharmD program, as defined in the Care Definitions, Practice Foundations and Terminal Objectives document, are designed to provide our graduates with the knowledge, skills, abilities and attitudes/behaviors necessary to render care in a changing health care system.

It is a student's responsibility to know his or her academic standing with respect to grades and progress toward degree requirements and comply with all department, School, and University requirements and regulations. Students should proactively address circumstances that affect academic performance in a timely manner. The advisers in the Office of Academic and Student Programs provide referral to School, University or community resources and encourage students to visit them or consult their student resource card for these services. The on-time graduation rate for the Class of 2006, 94%, Class of 2007, 91%, Class of 2008 92.5%, Class of 2009 94.2%.

Academic and Professional Standards Progress Committee (APSPC)

Student academic progress is reviewed by the APSPC, an appointed committee of the School. Membership on the Committee is composed of the Associate Dean of Academic and Student Programs, the Associate Dean of Professional Education, the Associate Director of Counseling Services and the Director of Experiential Education. Other faculty may be added to the Committee as determined by the Dean. The Committee will monitor and enforce the School's academic policies and make recommendations to the Dean regarding student probation and dismissal, approval of a leave of absence or an expanded curricular program, and other ad hoc duties as assigned by the Dean.

Prerequisites and Student Progression

Students should carefully review all course prerequisites before enrolling in core and elective courses. Please refer to the course catalog for information on course prerequisites and to the section of the Handbook for additional information on practicum course prerequisites.

Students must successfully complete all core courses in years 1 and 2, prior to enrollment in the Therapeutics course series (Pharm 560-565). Exception: It is recognized that Pharm 528 (Intro Institutional Exp) must be completed by Winter Quarter of the third professional year.

Please note the following minimum grades for individual School of Pharmacy courses and course series to apply toward the Doctor of Pharmacy degree requirements:

Minimum acceptable grades for individual courses

PHARM 500 and 500 P courses- 1.7 (exceptions: the minimum acceptable grade for Pharm 500, 504, and 512 is 2.7)

MEDCH 500 P courses -0.7

PCEUT 500 P courses-0.7

All other 400 level courses (e.g. CONJ, PHCOL, MEDCH, PCEUT) = 0.7

Minimum acceptable grades for course series:

PHARM 560-562 (2.0); PHARM 563-565 (2.0)

Professional Elective Courses

Professional elective classes allow students the opportunity to design a program of studies compatible with individual areas of interest.

As stated above in the Graduation Requirements section, students in the PharmD program may substitute up to ten credits of general elective coursework for a portion of their elective requirements. General elective courses may be chosen from a number of different departments or schools at the University of Washington, provided the course is 300 level or above. Students interested in taking general elective classes may want to consider doing so during the first professional year. For example, at the current time, students in the class of 2013 must complete 26 elective credits, along with their core requirements, to graduate. Sixteen of these credits must be from classes designated as professional electives by the School of Pharmacy. The remaining ten credits may be from either general or professional elective courses.

A professional elective course that is evaluated with a numeric grade must be taken as such to count toward the professional elective credit requirement. When registering, if a student selects the satisfactory/not satisfactory grading option (S/NS), then credits for that class will apply only towards the student's general elective credits. Students who have already completed ten general elective credits will not receive additional credits counted toward their degree requirements. Alternatively, if a professional elective course is designated as a credit/no credit (CR/NC) course, it will count towards professional elective credit. It is important to note that it is the instructor's prerogative to designate the grading of a course, whether it is numerically graded or CR/NC, and the student's choice to select the S/NS option. CR/NC courses are identified in the Course Catalog and Time Schedule.

The following examples illustrate these points:

MEDCH 525 is evaluated with the credit/no credit grading option, thus earned credits will be applied toward professional elective requirements.

PHARM 549 is a numerically graded course. It must be taken for a numeric grade if the student wishes to apply the credits toward professional elective requirements. If a student chooses the satisfactory/not satisfactory option, then the course credits are considered general elective credits. Please be aware that changing the grading option on this or any Geriatric Certificate course requirement will prevent you from earning the certificate.

Also, students should note that for selected courses there are limits on the number of credits that may be applied toward degree requirements. For example: PHARM 595 is a variable-credit course that may be taken more than once. Twenty-four credits are the maximum number of credits that may be applied toward the PharmD degree. Course descriptions will identify those courses that have maximum credit limits.

The Pharmacology courses offer variable credit options:

PHCOL 401 and 402 are offered as 3-4 variable credit classes Autumn and Winter quarters. You are required to take both these courses for 3 credits each to satisfy graduation requirements. If you opt to take either one or both these courses for 4 credits instead of 3, the additional credits above the core number will be counted as professional elective(s).

Note: This information is subject to change. Please consult the Time Schedule web site at www.washington.edu/students/timeschd/ or the Course Catalog web site at www.washington.edu/students/crscat for the most current listing of quarterly courses.

Professional Elective Course Lists

Please refer to the Student Section of the UW School of Pharmacy website, for lists of both School of Pharmacy and non School of Pharmacy Elective Course Lists.

School of Pharmacy Student Section: <http://depts.washington.edu/pha/students/info.html>

School of Pharmacy Professional Elective List: <http://depts.washington.edu/pha/students/sopelectives.pdf>

School of Pharmacy Professional Elective List (non School of Pharmacy courses):
<http://depts.washington.edu/pha/students/nonsopelectives.pdf>

Elective Count Procedure

Students are encouraged to track their elective credits each quarter. Students who anticipate graduating in 2011, 2012 and 2013 students should contact Cher Espina-Nguyen, cherelyn@u.washington.edu, or Micki Kedzierski, kedzm@u.washington.edu, with questions. Class of 2010 students should contact Nanci Murphy, murphyna@u.washington.edu, with questions.

Doctor of Pharmacy Program Student Academic Progression Plan

Student Name: _____ Student Number: _____

The following Academic Progression Plan describes a quarter-by-quarter course of action for completion of academic coursework and progression through the PharmD program.

Quarter	Autumn		Winter		Spring		Summer	
Year								
	Course	CR	Course	CR	Course	CR	Course	CR
Credits/Quarter								

Notes:

Quarter	Autumn		Winter		Spring		Summer	
Year								
	Course	CR	Course	CR	Course	CR	Course	CR
Credits/Quarter								

Notes:

Quarter	Autumn		Winter		Spring		Summer	
Year								
	Course	CR	Course	CR	Course	CR	Course	CR
Credits/Quarter								

Notes:

Quarter	Autumn		Winter		Spring		Summer	
Year								
	Course	CR	Course	CR	Course	CR	Course	CR
Credits/Quarter								

Notes:

Discussion and agreement on the plan is acknowledged by the following signatures:

Student: _____

Advisor/Faculty: _____

Date: _____

Approved by School of Pharmacy Academic and Professional Standards Progress Committee:

Signature: _____ Date: _____

Rev: 07-09

Experiential Learning

The goal of the experiential learning program is for students to progressively build skills, apply knowledge to solve problems, and foster development of a positive attitude toward their patients and profession, in actual practice sites. Fifty-three academic credits are devoted to helping students achieve this goal.

Beginning in the first year of the professional program, students will work on attaining competencies for the required early experiential classes, PHARM 527, Introductory Community Practice Experience, and PHARM 528, Introductory Institutional Practice Experience. Prerequisites for PHARM 527 and PHARM 528 include compliance with required immunizations, a valid Washington state pharmacy intern license, HIPAA training, a minimum grade of 2.7 in PHARM 500, a minimum grade of 85% on each of the required calculations exams, and a grade of 2.7 or higher in PHARM 504.

Before you begin PHARM 527 students need to submit the following paperwork to Monica Sahn, msahn@u.washington.edu, in Office of Professional Pharmacy Education:

- A photocopy of your current intern license.
- A copy of your certificate of completion of UW Medicine Health Insurance Portability and accountability act (HIPPA) training.
- Your signature that you understand and agree to abide by our guidelines for professional conduct.
- A signed statement that you understand we strongly recommend that you have health insurance.
- Documentation showing that you are current in your immunization status.
- Documentation that you are currently CPR-certified.

Before you begin PHARM 528 students need to submit the following paperwork to Monica Sahn, msahn@u.washington.edu, in Office of Professional Pharmacy Education:

- A photocopy of your current intern license.
- A copy of your certificate of completion of UW Medicine Health Insurance Portability and accountability act (HIPPA) training.
- Your signature that you understand and agree to abide by our guidelines for professional conduct.
- A signed statement that you understand we strongly recommend that you have health insurance.
- Documentation showing that you are current in your immunization status.
- Documentation that you have completed CPR training..

Students will be registered for PHARM 574 in spring quarter of their third professional year. The following criteria are required for credit in PHARM 574:

- Attendance at the site selection orientation, TBA.
- Successful completion of first aid and CPR training, with certification expiration in April of the following year or later.
- Certification of completion of UWMC HIPPA training program.
- Conformance with all immunization requirements.
- A successful patient interaction, including evidence that you both read the patient's chart and interviewed the patient.
- Attendance at both patient presentation sessions in lab.
- Verbal presentation of your case during one of the two laboratory session, with no more than three areas needing improvement. The evaluation form must be submitted to Dr. O'Sullivan.
- Submission of acceptable word-processed SOAP note for your patient to Dr. O'Sullivan.
- Attendance at each of two fourth-year practicum orientation sessions, TBA.

Prerequisites for the fourth professional year practicums include:

- Successful completion of PHARM 527, 528 and 574.
- A passing grade (1.7 or above) in all three quarters of the clinical therapeutics courses (PHARM 560, 561, 562, 563, 564 and 565) with a minimum of 2.0 cumulative GPA for these six courses.
- Compliance with immunizations as determined by the Rubenstein Hall Health Immunization Clinic.
- Evidence of first aid and adult CPR certification that expires on or after April of the following year.
- A satisfactory criminal background check, signed statement indicating awareness of ethical practice guidelines, and signed insurance statement.
- HIPAA compliance
- A current Washington state intern license. Additionally, students completing practicums outside of Washington State will need to comply with the intern licensure requirements of the state in which the learning experience is being done.
- Other paperwork as required by the Office of Professional Education

The fourth professional year will involve completion of coursework at pharmacy practice sites. Site assignments are made on the basis of student interest and need, although final placement in sites within the greater Seattle area is done through a randomized matching program. Practicums can start as early as the July following completion of the student's third professional year or in September provided prerequisites for entry are met. Nine advanced practice learning experiences are required for graduation; of these, a minimum of five must involve primarily patient-centered care, including one general medicine rotation, one ambulatory clinic site, one chain or community pharmacy site, and one health-system setting practice or a second in-patient rotation. Interested students are encouraged to pursue learning experiences in rural Washington, states other than Washington and at international locations. All students must complete a minimum of one learning experience in a medically underserved area. Students who choose School of Pharmacy practicums away from campus are welcome to use University and community services identified on their resource card and University websites.

Additional Program Opportunities

Certificate Program

Student may take selected courses as electives or complete the entire program series to earn a certificate concurrently with their PharmD degree.

Biomedical and Regulatory Affairs

(Sponsored by the School of Pharmacy and the School of Law)

This program is designed for individuals who are seeking an introductory or expanded understanding of regulatory affairs for the drug and medical device industry, and for others seeking training positions in the field. Program participants gain a comprehensive overview of the knowledge and skills necessary to be an effective regulatory affairs and compliance specialist. Such specialists oversee the design, development, testing and production of drugs, biotechnology-derived therapeutics, or medical devices. Access to Pharm 516-518 is available to a limited number of PharmD students. Please contact Dr. Hazlet for further information.

Contact: Dr. Tom Hazlet, thazlet@u.washington.edu

Website: http://www.extension.washington.edu/ext/certificates/bio/bio_gen.asp

Concurrent Degree Programs

PharmD and PhD in Medicinal Chemistry (extended program)

This program provides graduate training in medicinal chemistry concurrent with clinical training in the PharmD Program. Graduates of this dual degree program are qualified to conduct research within the pharmaceutical industry or in academic science. Research includes a broad spectrum of activities including studies pursuant to investigations of the interactions of both drugs and toxic substances with biological systems, and the relationship of chemical structure and dynamics to biological effect and function. Drug metabolism is a focus of the Department of Medicinal Chemistry.

Contact information: medchem@u.washington.edu; rodneyho@u.washington.edu

Website: <http://depts.washington.edu/medchem/>

PharmD and PhD in Pharmaceutics (extended program)

This program provides graduate training in pharmaceutics concurrent with clinical training in the PharmD Program. Graduates of this dual degree program are qualified to conduct basic and translational research on drug formulation, delivery and disposition, with an emphasis on pharmacokinetic-pharmacodynamic relationships. Research on drug interactions, drug delivery, regulation of drug metabolism enzymes and transporters, and pharmacogenetics are a focus of the Department of Pharmaceutics.

Contact information: pceut@u.washington.edu; rodneyho@u.washington.edu

Website: <http://depts.washington.edu/pceut/>

PharmD and MS in Pharmaceutical Outcomes, Research and Policy (5-year program)

This program provides graduate training in pharmaceutical outcomes research and policy concurrent with clinical training in the PharmD Program. Graduates of this dual degree program provide pharmacoepidemiologic, pharmacoeconomic and policy information, through research and scholarship, to government, the pharmaceutical and medical device industry, and managed care organizations.

Contact information: porpp@u.washington.edu

Website: <http://depts.washington.edu/porpp/>

Pharm.D. Program

Class of 2013

FIRST PROFESSIONAL YEAR

Autumn Quarter

CONJ 401	Hum Anat/Physiology	4
PCEUT 531	P-Pceutical Formulation: Principles & Dosage	4
PHARM 500	P-Principles of EMBI	2
PHARM 501	P-Profession of Pharmacy	3
PHARM 587#	P-Pharmacy Calculations	1
ELECTIVES		3

TOTAL 17

Winter Quarter

CONJ 402	Hum Anat/Physiology	4
MEDCH 570	P-Medicinal Biochemistry I	3
PHARM 504#	P-Pharmacy Practice	3
PHARM 511	P-Community Outreach Serv.	2
PHARM 539~	P-Prin of Prof Prac Mgmt.	3
ELECTIVES		2

TOTAL 17

Spring Quarter

CONJ 403	Hum Anat/Physiology	4
MEDCH 561	P-Immunizing & Antimicrobial Agents	4
MEDCH 571	P-Medicinal Biochemistry II	3
PHARM 512#	P-Hum Beh & Cnu Pharmacy	3
ELECTIVES		3

TOTAL 17

Students are required to successfully complete all core prior to entering the Therapeutic series (PHARM 560-565) in the Third Professional Year. #Please note: PHARM 500, 504 AND 512 minimum 2.7 grade. PHARM 587-85% or above on all calculation exams.

SECOND PROFESSIONAL YEAR

Autumn Quarter

MEDCH 562	P-Medicinal Chemistry	3
PHARM 537	P-Chem Depend. Concepts	2
PHARM 546	P-Non-Presc Drug Therap.	3
PHARM 543	Pharmacy Law & Ethics	4
PHCOL 401*	General Pharmacology I	3
ELECTIVES		2

TOTAL 17

Winter Quarter

MEDCH 563	P-Medicinal Chemistry	3
PHARM 527**	P-Intro. Comm. Pharm. Exp.	4
PCEUT 532	P-Clinical Pharmacokinetics	5
PHCOL 402*	General Pharmacology II	3
ELECTIVES		2

TOTAL 17

Spring Quarter

MEDCH 564	P-Medicinal Chemistry	3
PHARM 528**	P-Intro Instit Pharm Exp	3
PCEUT 533	P-Biopceutics/Drug Delivery	3
PHARM 508	P-Principles of EBMII	4
ELECTIVES		3

TOTAL 16

*You may take an additional credit for PHCOL 401 and PHCOL 402 which will be considered professional elective credits. **PHARM 527 is to be completed by the end of Winter Quarter of the second year. **PHARM 528 is to be completed by the end of Winter Quarter of the third year. Students are required to successfully complete all core courses prior to entering the Therapeutics series (PHARM 560-565) in the third professional year except for PHARM 528.

THIRD PROFESSIONAL YEAR

Autumn Quarter

PHARM 509	Principles of EMB III	2
PHARM 560	Pharmacotherapeutics I	9
PHARM 563	Applied Pharmacotherap.	2
ELECTIVES		4

TOTAL 17

Winter Quarter

PHARM 541	Pharm., Health Care & Soc.	3
PHARM 561	Pharmacotherapeutics II	9
PHARM 564	Applied Pharmacotherap. III	2
ELECTIVES		4

TOTAL 18

Spring Quarter

PCEUT 510~	Drug Interactions	3
PHARM 562	Pharmacotherapeutics III	7
PHARM 565	Applied Pharmacotherap.	2
PHARM 574^	Clinical Intro. Practice	1
ELECTIVES		3

TOTAL 16

Students must earn a passing grade of 1.7 or higher in previous quarters of therapeutics course and labs for progression into subsequent quarters of these courses.

FOURTH PROFESSIONAL YEAR

^PHARM 575, 576, 577 Clinical Practice (5 credits each). APPE practicums may be scheduled during any quarter. Students must meet practicum prerequisite as specified in student handbook. Must earn 2.0 minimum cumulative GPA in therapeutics series (PHARM 560-565) to advance into fourth year. ^ PRACTICUMS: These include: (527) a 4-credit IPPE practicum to be completed by the end of Winter Quarter of the second year; (528) a 3-credit IPPE practicum to be completed by the end of Winter Quarter of the third year; and (574) a 1-credit IPPE practicum to be completed by the of third year; and 9 practicums (575, 576, 577) in the fourth year. Nine advanced pharmacy practice experiences are required for graduation; of these a minimum of five must involve pharmacy primarily patient-centered care including ambulatory care, institutional or health systems practice, community, and in patient/acute care general medicine settings. Please contact Monica Sahn or Jennifer Danielson for IPPEs and Mary Neyhart or Terri O'Sullivan for APPEs with any questions.

NOTE: Courses are subject to change by action of the School of Pharmacy & UW Curriculum Committees. There are 171 core & 26 professional electives for a total of 197 credits. Typically, a student on federal financial aid must carry a minimum of 12 credit hours each quarter to retain full-time status. Please contact Academic & Student Programs or the Office of Student Financial Aid with any questions. ~PHARM 539 and PCEUT 510-Pending final approval. Updated: 7/1/09