

Western University of Health Sciences

College of Pharmacy

Doctor of Pharmacy (PharmD)

International Post-Baccalaureate PharmD (IPBP)

2018/2019 Catalog

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College of Pharmacy

Doctor of Pharmacy Program

Accreditation

The College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education (ACPE) located at 135 S. LaSalle Street, Suite 4100, Chicago, Illinois 60603-4810. Phone: (312) 664-3575; Fax: (312) 664-4652 web: www.acpe-accredit.org.

Accreditation Council for Pharmacy Education (ACPE) Policy on Complaints

Student pharmacists have a right to file a complaint with the Accreditation Council for Pharmacy Education (ACPE) if they feel the College of Pharmacy and/or any College of Pharmacy personnel is in violation of the accreditation standards or policies established by ACPE.

For further information, please see the following link:

<http://www.acpe-accredit.org/students/complaints.asp>.

General Information

Vision

Develop leaders in pharmaceutical care and research who will advance global health outcomes through innovative pharmacy practice, interprofessional collaboration, scholarship and service.

Mission

- To provide innovative educational experiences that produce humanistic, caring and competent team-ready health professionals and scientists
- To support and stimulate scholarship, teaching and service to improve the human condition
- To engage local, national and international partners to maximize the impact of the College

The Degree

The Doctor of Pharmacy (PharmD) degree is awarded in recognition of the highest level of professional education in pharmacy in the United States. To earn the PharmD degree, student pharmacists complete four years of professional study following a minimum of two years of pre-professional education at an accredited college or university.

Student pharmacists who complete this program are eligible to take state and national pharmacy licensing examinations provided they have satisfied other licensure requirements such as 1500 hours of internship experience. After passing this examination, graduates are licensed to perform all the duties and responsibilities of a practicing pharmacist.

The Doctor of Pharmacy Curriculum

To obtain the PharmD degree student pharmacists will complete a curriculum made up of four components: (1) the didactic curriculum, (2) experiential education curriculum, (3) the interprofessional curriculum, and (4) the professionalism curriculum.

The Didactic Curriculum Component

In the core didactic component of the program, student pharmacists will learn about biological systems and about drugs and their effect on the body. They will take courses in areas such as therapeutics, health care administration, pharmacology, immunology, pharmaceuticals, pharmacogenomics and pharmacokinetics and learn how to apply this knowledge to pharmacy practice. Their studies will include communication skills, patient counseling, pharmacy practice laws and regulations, health care systems, physical assessment and evaluation of the medical literature.

The Experiential Education Curriculum Component

The pharmacy practice experiential education curriculum begins with the Introductory Pharmacy Practice Experiential (IPPE-1) courses (PHRM 5998 and 5999), which run throughout the first year of study. Both of the first year experiential courses, one in the Fall Term (IPPE-1A) and one in the Spring Term (IPPE-1B), run for four weeks (4 days/week, 70 experiential hours, 2 credit hours each) exposing the student pharmacist to community pharmacy practice in two different settings. Every student pharmacist will complete both courses by the end of their first year. For student pharmacists enrolled in the International Post-Baccalaureate PharmD Program (IPBP), the IPPE-1 course (PHRM 6300) will run during one four week, full-time period at the end of the summer between the P-2 and P-3 years.

The second year IPPE course (PHRM 6999; IPPE-2) is scheduled during the summer between the second and third years. It consists of a four week (40 hours/week) experience (160 experiential hours, 4 credit hours) that exposes student pharmacists to institutional/inpatient pharmacy practice.

In several different patient-centered training sessions, particularly during the third and fourth years, the student pharmacist will be given an opportunity to put into practice what they have learned in the classroom. Under the supervision of a staff pharmacist, clinical pharmacist and/or faculty member, they will assess and counsel patients, monitor their drug therapies and be involved in most aspects of pharmacy practice. They will spend a total of 36 weeks in these training sessions, called advanced pharmacy practice experiences (APPE) (36 credit hours). Such pharmacy practice experiences will take place in hospitals as well as in clinics, community pharmacies and other settings where pharmacists practice. A student pharmacist may withdraw from an APPE within the first 2 weeks of the experience without receiving a grade of NCR. After the two-week period, withdrawal from an APPE will result in a grade of NCR. If a student pharmacist withdraws from an APPE, they will be required to complete an appropriate replacement APPE during their "Off" rotation, or after their Advanced Elective, as appropriate. NCR grades due to withdrawal from an APPE after the first two weeks will be handled in accordance with the policies discussed later in this document.

After the APPE's are completed, student pharmacists undergo the 16-week Advanced Elective (AE) (16 credit hours). This 4-month rotation/research experience allows student pharmacists to develop more skills and insight in a specific practice area. By November of the student's last year, individuals should identify an area of professional interest in which they wish to practice. The 16-week AE program is designed to provide a capstone experience in the student pharmacist's chosen area of interest (e.g., administration, various clinical settings, pediatrics, infectious disease, internal medicine, cardiology, renal, oncology, ICU, ambulatory care, community practice, compounding, pharmacoconomics, managed care, psychiatry, teaching, pharmaceutical industry, pharmacy informatics, independent pharmacy ownership, etc.).

The clinical training component comprises of 60 credit hours, which is 36% of the total curricular requirements.

The Interprofessional Curriculum Component

Student pharmacists in their first and second professional years are required to participate in a series of Interprofessional Education (IPE) courses. These courses prepare health professions students to practice health care services through a team approach. The IPE courses instill non-technical competencies including communication, collaborative practice and scope of practice. Working in small interprofessional teams, student pharmacists apply these competencies as they jointly explore cases or activities presenting common clinical scenarios or conditions with other health professions students. These cases and activities integrate elements common to all professions, including ethical, behavior, social and psychological issues.

The Professional Development Curriculum Component

The College of Pharmacy values the development of student pharmacists into contributing members of the profession of Pharmacy and expects all graduates to acquire and maintain the highest level of professional attitudes and behaviors. To promulgate this belief, student pharmacists must participate in at least five professional development activities during each of the first two academic years, and five in the last two academic years (combined). These activities are divided into five categories: (1) professional education, (2) patient care service, (3) legislative advocacy, (4) professional service and leadership and (5) healthcare related community service and philanthropy.

Personal Competencies for Admission and Matriculation

A candidate for admission to the Doctor of Pharmacy program must possess, or be able to achieve through a reasonable accommodation, certain intellectual, emotional, and physical abilities, that would enable the individual to acquire the knowledge, technical and clinical skills needed to complete, successfully, the curriculum in order to pursue a career in pharmacy practice. Upon matriculation to the program, the student must continue to possess, or be able to achieve through a reasonable accommodation, the personal competencies outlined below throughout their progression in the Doctor of Pharmacy program. The practice of pharmacy requires the performance of specific functions that fall into five broad skills categories, including, but not limited to the areas outlined below.

For candidates or students who require a reasonable accommodation in order to meet the competencies outlined below, please contact the Harris Family Center for Disability and Health Policy/Accommodation and Resource Center (CDHP/AARC) at (909) 469-5297.

Under all circumstances, a candidate or student should be able to perform the following in a reasonably independent manner, with or without a reasonable accommodation:

Observation Skills

Candidates must be able to observe lectures, demonstrations and experiments in all types of settings. A candidate must be able to observe a patient's condition and elicit information using appropriate physical assessment techniques in order to evaluate, recommend and initiate therapy. Pharmacy practice requires the ability to visually interpret prescription and medication orders and accurately distinguish one produce from another.

Communication Skills

Candidates must be able to communicate effectively in both academic and health care settings. This requires the ability to understand, write and speak fluent English. The candidate must also be able to recognize nonverbal communication cues.

Motor Skills

Candidates must possess both fine and gross motor skills necessary to fulfill all types of medication orders, to utilize diagnostic equipment for patient assessment and to deliver or administer patient therapies. Patient therapies include, but are not limited to, immunizations and cardiopulmonary resuscitation. Candidates must be able to use pharmacy equipment, technologies and computer-based information systems. Candidates must have sufficient physical stamina to complete the rigorous didactic, laboratory and clinical experiences, which consist of long periods of sitting, standing or moving.

Interpretative, Conceptual and Quantitative Skills

Candidates must be able to utilize learning techniques that will allow mastery of the pharmacy curriculum when delivered through a variety of modalities including didactic instruction, group-based learning, independent learning, projects, reports, experiential training and computer assisted learning. Candidates must demonstrate a fundamental and continuing ability to use analytical reasoning independently and in collaboration with others to assimilate knowledge, solve problems and explain health care situations. The candidate must be able to use information to develop appropriate drug therapy and monitoring plans in a reasonable amount of time.

Behavioral and Social Skills

Candidates must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment and the prompt completion of all academic and patient care responsibilities. The candidate must demonstrate professional and ethical demeanor appropriate to his/her educational level and the ability to work in an interprofessional environment. Candidates must also be able to adapt to changes, function in the face of uncertainty, display flexibility and be able to ensure prompt and safe completion of all responsibilities. Compassion, integrity, interpersonal skills, motivation and concern for others are humanistic qualities that will be assessed during the admissions process.

Programmatic Outcomes

The faculty of the College has defined a set of minimal, concise, program outcomes for the Doctor of Pharmacy Program at Western University of Health Sciences. Graduates from our Doctor of Pharmacy Program are expected to provide pharmaceutical care as entry-level pharmacists. As such, these outcomes reflect the knowledge, skills and attitudes of generalist, entry-level pharmacists who are able to deliver high quality pharmaceutical care.

The program outcomes were developed by a national panel of pharmacy educators and are essential elements of pharmacy education accreditation. The outcomes are well aligned with the vision of the WesternU College of Pharmacy: ***“Develop leaders in pharmaceutical care and research who will advance global health outcomes through innovative pharmacy practice, interprofessional collaboration, scholarship and service”.***

The program outcomes delineate the knowledge, skills and attitudes that student pharmacists must develop in order to practice competent pharmaceutical care. They provide the minimal set of abilities that a student should master during his/her education and training within our Program. These outcomes are consistent with current accreditation standards and other professional standards, guidelines and codes. They provide the basis upon which the Doctor of Pharmacy curriculum and student competency will be assessed.

Program Outcomes	
1.1. Learner (Learner)	Develop, integrate and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems and advance population health and patient centered care.
2.1 Patient-centered care (Caregiver)	Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans and document activities).
2.2 Medication use systems management (Manager)	Manage patient healthcare needs using human, financial, technological and physical resources to optimize the safety and efficacy of medication use systems.
2.3 Health and wellness (Promoter)	Design prevention, intervention and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

2.4	Population-based care (Provider) Describe how population-based care influences patient centered care and influences the development of practice guidelines and evidence-based best practices.
3.1	Problem Solving (Problem Solver) Identify problems, explore and prioritize potential strategies and design, implement and evaluate a viable solution.
3.2	Educator (Educator) Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.
3.3	Patient Advocacy (Advocate) Assure that patients' best interests are represented.
3.4	Interprofessional collaboration (Collaborator) Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding and values to meet patient care needs.
3.5	Cultural sensitivity (Includer) Recognize social determinants of health to diminish disparities and inequities in access to quality care.
3.6	Communication (Communicator) Effectively communicate verbally and nonverbally when interacting with an individual, group or organization.
4.1	Self-awareness (Self-aware) Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation and emotions that could enhance or limit personal and professional growth.
4.2	Leadership (Leader) Demonstrate responsibility for creating and achieving shared goals, regardless of position.
4.3	Innovation and Entrepreneurship (Innovator) Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.
4.4	Professionalism (Professional) Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers and society.

Admissions Policies and Procedures

Admission to the College of Pharmacy is on a highly competitive basis. Each year we receive many more applications than we can accommodate in our program. At WesternU, we retain smaller class sizes, offering accepted student pharmacists a closer relationship with their faculty and fellow student pharmacists. The College of Pharmacy is looking for individuals who add to the diversity of our student body, have excellent communication skills, demonstrate compassion, are dependable, display good judgment and critical thinking abilities, and exhibit dedication towards advancing the profession.

Non-Discrimination Policy

In accordance with all applicable federal, state and local laws, Western University of Health Sciences (WesternU) is committed to ensuring a campus community free from unlawful discrimination. Accordingly, Western prohibits unlawful discrimination on the basis of race, color, national or ethnic origin, religion or religious creed, sex or gender (including gender identity or expression), marital status, sexual orientation, disability, age, genetic information, military or veteran status or any other characteristic protected under applicable law, in the administration of its programs or activities. WesternU also prohibits unlawful harassment, including Sexual Harassment. Lastly, WesternU is committed to providing equal access to and equal opportunities to all members of its campus community in accordance with all applicable laws.

This non-discrimination policy applies to applicants, students and alumni. Additional nondiscrimination information can be found in the Nondiscrimination, Anti-Harassment and Anti-Retaliation Policy, located in the University Catalog.

Reasonable Accommodation for Disabilities

Candidates and students must be able to perform all the essential functions of the program with or without reasonable accommodation. A student who discloses a disability and requests accommodation will be referred to the Harris Family Center for Disability and Health Policy (CDHP). The student will be asked to provide documentation of the disability for the purposes of determining appropriate accommodations. The College of Pharmacy will provide reasonable accommodations, but is not required to make modifications that would substantially alter the nature or requirements of the program. A student with questions regarding reasonable accommodation can contact the CDHP office.

Application Requirements

The application requirements shown in this catalog apply to applicants who are seeking entry for the 2018/2019 academic year. Current admission and application requirements for the PharmD program, including prerequisite coursework requirements, can be located on the [Prospective Student website](#).

The College of Pharmacy Admissions Committee will consider applicants with a minimum of two years of college (60 academic semester hours or 90-quarter hours) of pre-pharmacy study at an accredited college or university. The minimum preferred cumulative pre-pharmacy and science grade point average is a 2.75. Grades of "C-" or lower in any of the prerequisite courses are not accepted. Prerequisite courses are subject to review each year.

Applicants who have received a baccalaureate degree or higher will be considered more favorably than applicants who have fulfilled only the minimum requirements.

Prerequisite Courses

Prerequisites	Duration	
College English*	1 Semester	* Waived with a confirmed Bachelor's degree at time of application.
English Composition*	1 Semester	
Speech Communication*	1 Semester	
General Chemistry (w/ Lab)	2 Semesters	# Electives must be met from two of the three following areas: public speaking/debate, social sciences, economics or physics. No two electives can be taken from the same department.
Organic Chemistry (w/ Lab)	2 Semesters	
Human Anatomy	1 Semester	
Human Physiology	1 Semester	
Microbiology (Medical Microbiology is preferred)	1 Semester	
Biochemistry/Molecular Biology/Cell Biology	1 Semester	
General Biology	1 Semester	
Calculus	1 Semester	
Electives*#	2 Semesters	

- All advanced placement (AP) credit test scores that were previously accepted by the applicant's undergraduate institution are acceptable (time limit of 10 years).
- Introductory level courses in the sciences are not accepted.
- If anatomy and physiology are combined, a minimum of five (5) semester units is acceptable. Anatomy and physiology must be taken from the anatomy, physiology, A&P, biology or zoology departments.
- We do not accept substitutions or waive any of the prerequisite courses.
- English as a Second Language (ESL) courses are not accepted for the English requirement. English courses must be taken from the English department.
- All prerequisite course work in progress must be completed no later than the spring semester or quarter immediately preceding matriculation.
- Summer session courses taken immediately prior to matriculation at WesternU are not accepted.
- Transfer of Credit, CLEP or Credit for Experiential learning is not recognized by the program.

Standardized Examinations

- Pharmacy College Admissions Test (PCAT) is not required.
- Test of English as a Foreign Language (TOEFL)

TOEFL is required for all applicants submitting course work from foreign schools. A minimum score of 213 for the Computer Based test or 79 for the Internet Based TOEFL (IBT) test must be submitted by March 1

prior to matriculation. TOEFL scores are valid for two years. For more information regarding the TOEFL test, please visit their website at <http://www.ets.org/toefl>.

Exception: The TOEFL exam will be waived for permanent and temporary residents of the United States who have completed the English and Speech prerequisites of the College from an accredited institution in the United States.

English courses taken from foreign countries whose native language is English will be accepted (e.g., Canada, Australia, Great Britain, New Zealand and the British West Indies).

Recommendations

Three letters of recommendation are required as part of the admissions application. Recommendation forms are available via PharmCAS (see below). The recommendations should state the nature and extent to which the recommender knows the candidate and should elaborate on the applicant's attributes and abilities including communication skills, ethics, interpersonal skills and motivation toward the profession.

Application Procedures and Deadlines

The Pharmacy College Application Services (PharmCAS) is the centralized application service for WesternU's College of Pharmacy. PharmCAS offers a web-based application service that allows applicants to use a single application and one set of materials to apply to multiple PharmD programs.

WesternU's application deadline to apply to PharmCAS is November 1st. Application materials must be complete and submitted to PharmCAS by the deadline. It can take approximately 4-5 weeks for PharmCAS to process application materials and forward them to Western University of Health Sciences. To apply to PharmCAS, or to request an application, visit their website at <http://www.pharmcas.org>.

In addition to the PharmCAS application, WesternU requires applicants to submit a supplemental application, the pre-requisite worksheet, three recommendation evaluation forms (provided by WesternU) and an application fee of \$65.00. All application materials can be located on our website at <http://prospective.westernu.edu/pharmacy-pharmd/apply-13/>. The supplemental application packet is due November 1st. Applicants who do not submit all application materials by the deadline may not be eligible to continue in the admissions process. The minimum preferred GPA for consideration is a 2.75 (overall) and a 2.75 (sciences). A final evaluation will be completed upon receipt of the PharmCAS and supplemental application. WesternU is not responsible for delays in mail delivery. We strongly encourage candidates to apply early.

Faculty in the College of Pharmacy will screen each applicant's admissions file to determine whether an applicant will be granted an on-campus interview. Candidates selected for an on-campus interview will be required to participate in an assessment of written and verbal communication skills, as well as a critical thinking component. Interview sessions are conducted during the weekends (Saturdays) and, only under special circumstances, during the weekday. Decisions of the Admissions Committee regarding the admission of applicants to the Doctor of Pharmacy program are final.

Applicants admitted to the College of Pharmacy are required to pay a \$500.00 enrollment deposit. Upon enrollment, this deposit is applied toward the tuition for the academic year. Persons who fail to enroll forfeit the entire deposit.

Early Decision Program

The WesternU College of Pharmacy participates in the Early Decision program. The deadline for application materials is the day after the Labor Day holiday each year. The Early Decision program is a binding option for applicants who have decided that a particular pharmacy degree program is their first choice and they will enroll if accepted. As an Early Decision applicant, candidates can apply to only one pharmacy degree program.

Candidates may be offered early admission, denied early admission or deferred to regular applicant status. If they are offered admission as an Early Decision applicant, they are obligated to accept the offer and they will not be permitted to apply to other PharmCAS degree programs during the current cycle. However, if they are denied admission as an Early Decision applicant, they may apply to other PharmCAS degree programs for an additional fee. Please visit the [PharmCAS](#) website for more information.

Applicants with Foreign Coursework

Applicants who wish to use coursework completed outside the United States must submit their transcripts for evaluation to a [Western University of Health Sciences Approved Service](#) at the candidate's expense. A course-by-course evaluation is required and all coursework must be designated as undergraduate, graduate or professional. Western University only honors evaluations from one of the approved services. The official evaluation must be included with the supplemental application packet.

International Students

International students and any other applicants who are not U.S. citizens and who are living in the U.S. should be prepared to provide proof of legal U.S. residency at the time of interview. Proof of legal U.S. residency is required prior to any offer of acceptance. For more detailed information, please visit the web page for [International Students](#).

Transfers from Other Schools

Due to the unique nature of the curriculum, it is the general policy of the College of Pharmacy not to allow student transfers from other pharmacy programs.

International Post-Baccalaureate PharmD (IPBP) Track

Description of the IPBP Program

The WesternU College of Pharmacy offers a unique opportunity for American and/or foreign trained pharmacists with a bachelor's degree (B.S. or equivalent) who wish to progress to the Doctor of Pharmacy (PharmD) degree. Applicants are admitted with advanced standing into the second year of our traditional PharmD curriculum, thereby bypassing the first year. The Doctor of Pharmacy degree awarded to the student pharmacist in the international program is the same as those awarded to our student pharmacists in the traditional PharmD program. Please refer to the PharmD section of the catalog for additional information on academic and student conduct policies and procedures.

Application Procedure

1. Original Admission Application Form (completed and signed).
2. Application Deadline: All application materials must be received or postmarked by November 1, for admission in the following academic year.
3. Application Processing Fee: Non-refundable application fee for \$65 payable to Western University of Health Sciences.
4. International Student Application (ISA): International applicants, applicants who are not U.S. citizens and who are living in the U.S. and applicants who have applied for permanent residency but have not been approved at the time of application must complete the International Student Application (ISA). The ISA must be included in the candidate's Supplemental Application. There is no fee for the ISA.
5. Resume/Curriculum Vitae: Please provide a current resume or curriculum vitae, if available.
6. Bachelor of Science (or equivalent) in Pharmacy: Candidates should provide a copy of their degree certificate and enclose it with their application.
7. Official Transcripts: Submit official transcripts from all schools attended in the United States and/or an evaluation of a candidate's credentials from each college or university attended in a foreign country. Please see the list of foreign credentials evaluation services. Transcript evaluation must come directly from the evaluation service. Photocopies are not acceptable. The minimum GPA requirement for admission into the program is 2.50 on a 4.00 scale.
8. Personal Questionnaire: Candidates should complete the questionnaire and enclose it with their application. The questionnaire can be downloaded from the IPBP website.
9. TOEFL (Test of English as a Foreign Language): TOEFL, including essay, is required for all applicants submitting course work from foreign schools and for all permanent or temporary residents of the United States. Exception: The TOEFL exam will be waived for applicants who have graduated with a confirmed baccalaureate or higher degree from a United States institution. A minimum score of 213 for the Computer Based test or 79 for the Internet Based TOEFL test must be submitted by June of the year of matriculation. TOEFL scores are valid for two (2) years. TOEFL scores will not be waived for pending baccalaureate and/or higher degrees or pending naturalization appointments. Official scores must be sent directly from the Education Testing Services (ETS). Photocopies are not acceptable. For more information regarding the TOEFL test, please visit their website at <http://toefl.org>
10. FPGEE (Foreign Pharmacy Graduate Equivalency Examination): FPGEE scores are not required for entry into the IPBP program.
11. Internal Assessment (IA): The Internal Assessment (IA) exam is mandatory for consideration of admission into the program. The exam scores are valid for one (1) year. Fee Information for IA Testing: The following fee structure will apply to all applicants (a) \$250 for online access to the IPBP study guide and (b) \$250 for IPBP exam. All checks must be payable to Western University of

Health Sciences. Single payments of \$500 are not accepted (see FAQ section on the University website for more information).

12. References: Three satisfactory recommendations (forms provided) from qualified individuals (not related to the candidate) capable of evaluating their overall personality, professional enthusiasm, and integrity. Each recommendation must be submitted in a sealed envelope that is signed over the seal by the recommender.
13. Verification of Employment (Optional): Letter(s) from current employer(s) verifying employment status. If self-employed, provide supporting documentation.

IA/Interview Guidelines

Upon successful completion of the above requirements, candidates may be invited for an interview session on or off-campus, based on satisfactory preliminary file evaluation. The IA examination will be conducted on the same day as the interview.

IA Examination

This exam serves as an entrance exam for admissions into the IPBP program. Scores from the test play a significant role in the overall admissions process (for more information view the [Prospective Student Website](#)).

Oral Communication Skills

These skills will be evaluated during a personal interview session conducted by members of the admissions committee. Each interview session will be approximately 30 minutes in duration. The purpose of this exercise will be to determine the candidate's command of the English language as well as interpersonal skills.

Written Communication Skills

All candidates will be required to take a written essay test wherein a topic of general interest will be presented. Time allowed for this activity is approximately 45 minutes. The purpose of this exercise will be to assess the candidate's overall ability and effectiveness in reading, writing and comprehension of the English language.

Critical Thinking Skills Assessment

All candidates will be required to take a critical thinking assessment known as the Health Sciences Reasoning Test (HSRT) on interview day. This 50-minute duration, multiple-choice exam requires no prior preparation and questions are based on situations dealing with general health related issues. The purpose of this exercise is to evaluate the candidate's logical and critical thought process when encountered with unique life situations.

Course Waiver Policy

Applicants accepted to the International Post-Baccalaureate PharmD program (IPBP) may be granted course waivers for all first year coursework in the PharmD program. The maximum number of credit hours that will be waived is 44.50 credit hours. Only credit hours relevant to the bachelor's degree in pharmacy granted by the applicant's institution may be used to waive first year PharmD course requirements.

Registration

All WesternU students are required to register by the registration deadlines specified by the University Registrar. Registration dates are posted on the [Registrar's Office](#) website. Failure to register by the deadline may be grounds for administrative withdrawal. All students registering after the posted deadline will be assessed a \$30.00 per business day late fee.

Full tuition and fees and all prior debts must be paid in full on or by posted deadlines each academic year. Matriculation is subject to the satisfactory completion of all academic requirements and payment of all outstanding debts to the University. The receipt of the final transcript(s) from all colleges/universities attended and a physical examination with documentation of required immunizations (if applicable) prior to registration are additional requirements for incoming students.

Registration Late Fee Appeals

If you are assessed late fees for a registration period, you may submit an appeal to the Registrar. For additional information on the appeal process, please see the [Registration Late Fees](#) page on the Registrar's Office website.

Student Health Insurance Requirement

All full-time students at Western University of Health Sciences are required to have active health insurance while enrolled. All students are automatically assessed half of the entire year's insurance premium and will be enrolled in the student health insurance plan until they submit proof of coverage that meets the University's requirements. For additional information on student health insurance requirements and/or waiving out of the student health insurance plan, please see the [Student Health Insurance](#) page on the Registrar's Office website.

New Student Orientation/Welcome Week

Attendance at all Orientation is mandatory for all incoming first-year student pharmacists. For additional information on Welcome Week activities for the College of Pharmacy, please visit <http://www.westernu.edu/students/welcome-week/>.

Student Initiated Changes in Enrollment Status

Leave of Absence

A student may request a Leave of Absence (LOA) with the occurrence of a medical emergency or illness, personal issues, financial hardship or military service. Students must be in good academic standing to be eligible for a Leave of Absence. For additional information on the University's Leave of Absence policy, please see 'Student Initiated Changes in Enrollment Status' in the University Catalog, General Academic Policies and Procedures section.

Withdrawal from University/Academic Program

Matriculation at the University is a privilege granted in consideration of specified levels of performance and of maintaining the established standards of scholarship and personal and professional conduct. The University reserves the right to require withdrawal at any time it deems necessary to safeguard its standards of scholarship, conduct and orderly operation. The student concedes this right by act of matriculation. For additional information on withdrawing from the PharmD or IPBP program, please see 'Student Initiated Changes in Enrollment Status' in the University Catalog, General Academic Policies and Procedures section.

Full-Time/Part-Time Status

All PharmD/IPBP students enrolled in at least one class/rotation are considered full-time students.

Time Limits

The Doctor of Pharmacy program is designed to be completed in four (4) years of full-time study. The requirements for the degree must be fulfilled within 6 years from the date of matriculation to the program. Students who are unable to meet the 6-year time limit for the PharmD program may be subject to administrative withdrawal.

The International Post-Baccalaureate PharmD program is designed to be completed in three (3) years of full-time study. The requirements for the degree must be fulfilled within 4 years, 6 months from the date of matriculation to the program. Students who are unable to meet the 4 year, 6 month time limit for the IPBP program may be subject to administrative withdrawal.

Tuition and Fees

In estimating costs for one academic year of study at WesternU's College of Pharmacy, student pharmacists should include tuition and fees, laptop computer and printer, books and supplies, room and board and other miscellaneous expenses. By action of the Board of Trustees, Doctor of Pharmacy tuition and fees for the 2018/2019 academic year (subject to change) are as follows:

\$49,685.00	Annual Tuition
\$40.00	Student Body Fee

Other Fees and Expenses

\$22.88	Top Hat Classroom License Fee (PharmD 2022)
\$30.00	Registration Late Fee (Per Business Day)
\$350.00	Graduation Fee
\$470.00	Annual Parking Permit (Auto)
\$40.00	Locker Key Replacement Fee
\$10.00	Official Transcript (Each)
\$21.00	Rush Transcript, First Class Mail (Each)
\$25.00	Rush Transcript, Federal Express (Each)
\$10.00	Student ID Replacement Fee
\$150.00	Dosimetry Badge Replacement Fee
\$TBD	Breakage Fee (Replacement Cost)

Modified Curriculum/Repeated Coursework Tuition Rates

Students enrolled in a modified PharmD curriculum or who are directed to repeat one or more courses but not the entire academic year are charged a per credit hour tuition rate. This rate is calculated by dividing the total credit hours required for a class year by the annual tuition. The per credit hour rates for 2018/2019 are shown below:

\$1,169.06	PharmD Year 1 Modified Curriculum Per Unit Charge
\$1,155.47	PharmD Year 2 Modified Curriculum Per Unit Charge
\$1,257.85	PharmD Year 3 Modified Curriculum Per Unit Charge
\$955.48	PharmD Year 4 Modified Curriculum Per Unit Charge
\$1,057.13	IPBP Year 1 Modified Curriculum Per Unit Charge
\$1,142.18	IPBP Year 2 Modified Curriculum Per Unit Charge
\$955.48	IPBP Year 3 Modified Curriculum Per Unit Charge

Computer Technology

The College of Pharmacy requires that each enrolled student pharmacist have a notebook or laptop computer during class, after class hours and while on rotations. Privacy screens/filters are required for all notebook and laptop computers for in-class assessments. Laptop specifications can be found at <http://www.westernu.edu/computing/computing-students/>.

The College of Pharmacy also requires that first, second and third year student pharmacists have a classroom responder, approved by the College. Individual responders must be registered to only one (1)

student. Classroom responders are electronic devices that will be used to enhance interactive learning in classrooms. The device will enable faculty to gauge student understanding of concepts, introduce more innovative teaching and assessment methods, improve student involvement in learning and facilitate classroom learning to become more dynamic. The responders will also be used to administer and score assessments. Therefore, student pharmacists are also required to bring responders to each class.

Financial Assistance

All PharmD/IPBP student pharmacists are eligible to apply for need-based financial aid provided they meet established criteria. For information, please visit the [Office of Financial Aid website](#).

General Academic Policies and Procedures

Academic Advisement

Student pharmacists are assigned a faculty advisor, which provides student pharmacists the opportunity to develop sustained, individual advisement on academic and professional levels. Student pharmacists may request a change of advisor, if needed, through the office of the Assistant Dean of Student Affairs (or his/her designee).

Course Participation and Attendance

Student pharmacists are expected to be in class during all instruction hours specified in the course schedule.

Student pharmacists are required to participate in all assessed activities (assignments, exams, etc.). When a student pharmacist must be absent, he/she must contact the Course Facilitator prior to the missed class. If unable to reach the Facilitator, the student pharmacist must leave a voice-mail message, an e-mail message or a message with a staff support person or the Assistant Dean of Student Affairs that includes a contact telephone number.

WesternU publishes an annual list of federal holidays observed by the University. A student pharmacist who requests time off for days other than those observed by WesternU must do so by completing the “Excused Absence” form and submitting it to the Course Facilitator a minimum of five (5) school days before the start of the course in which the holiday falls. If the request is approved by the Course Facilitator, the student pharmacist is responsible for any work missed on the date(s) absent. All assignments must be completed by the scheduled time. However, if the student pharmacist fails to notify the Course Facilitator in the time frame noted above, the absence will be considered an unexcused absence, and no make-up assessment will be permitted. The WesternU holiday schedule does not apply to student pharmacists on Introductory Pharmacy Practice Experience – 2, Advanced Pharmacy Practice Experiences, and on off-campus Advanced Electives. Student pharmacists will follow the rotation site schedule on Introductory Pharmacy Practice Experience – 2, Advanced Pharmacy Practice Experiences, and on Advanced Electives.

An absence may be excused by the course facilitator for student pharmacists participating in approved professional development activities, in situations involving illness, or in other emergencies. In all cases when the absence is unplanned, documentation of the reason(s) for the absence must be provided to the course facilitator upon return to class. A copy of this documentation will be forwarded to the Assistant Dean of Student Affairs for inclusion in the student pharmacist’s file. The course facilitator/faculty will determine how the missed materials will be completed. If emergencies arise that require a student pharmacist to miss more than one assessed course activity or more than three (3) days of the class, the student pharmacist may be required to retake the course.

The course facilitator is responsible for determining whether accommodations can be made. The course facilitator’s decision is final.

Examples of situations when accommodating absences may not be possible include (but are not limited to) the following:

1. **Missed team assignments:** An individual student pharmacist may not be able to demonstrate mastery of course material without completing the assignment within the context of a team.

2. **Missed assessments of clinical skills:** An individual student pharmacist may not be able to demonstrate mastery of clinical skills without the specific circumstances arranged within the course.

This policy also applies to student pharmacists on IPPE/APPE/AE. These student pharmacists are also governed by policies contained in the individual IPPE course syllabi or the APPE syllabi and by rotation-specific requirements.

Elective Coursework

Student pharmacists in the PharmD program are required to complete four (4) credits of didactic electives in order to graduate. Student pharmacists in the IPBP program are required to complete three credits of didactic electives in order to graduate. All didactic elective credits must be completed prior to the start of the APPE rotations. The grading system for didactic elective courses will be determined by course facilitators. The facilitator may assign a letter grade or a pass/no pass grade.

All elective course enrollment, including adding/dropping, must be finalized prior to the start of each term. Once the term starts, student pharmacists may only add or drop elective courses with consent from faculty facilitator who will evaluate each case independently.

Independent Study

Because of the unique and intensive nature of the College of Pharmacy's curriculum, the collaborative teaching and learning processes among team members and the sequencing of key courses, the Faculty does not believe that independent learning of didactic coursework meets the goals of the Doctor of Pharmacy program. In special cases, e.g. involving illness, reasonable accommodations will be made to permit the student pharmacist to continue in his/her course of study if possible. Additionally, the collaborative learning process among team members is a critical element of the curriculum. Student pharmacists accepted into the program must understand that their grades require successful collaboration with team members. Independent study of courses in the didactic curriculum in the College of Pharmacy is not permitted either in summer or during the academic year.

Research Activities

Student pharmacists in the College of Pharmacy are encouraged to participate in research under the direction of faculty advisor(s). Student pharmacists with appropriate interests and academic preparation may participate in research as part of the elective program.

Pharmacy Intern License Requirement

All student pharmacists are required to be licensed interns with the California State Board of Pharmacy during all phases of the experiential program (IPPE, APPE, AE and all professional development curriculum activities). First year student pharmacists are required to file a copy of their intern license with the Associate Dean for Experiential and Professional Affairs by the first Monday in October of their first year in the PharmD program. Student pharmacists unable to obtain a valid pharmacy intern license by the deadline will not be permitted to begin any clinical practice experience. Student pharmacists found not eligible for an intern license by the State Board of Pharmacy will be dismissed from the PharmD program. The California State Board of Pharmacy is a body independent of the College of Pharmacy. The College of Pharmacy assumes no liability for decisions made by the Board regarding the status of a student pharmacist's intern license. The Board of Pharmacy requires the College to inform them when a student pharmacist is placed on academic suspension or on a leave of absence. Any student pharmacist who is not

actively enrolled in coursework as a result of being under academic suspension or leave of absence may have their intern license suspended during this time period. The student pharmacist should contact the CA State Board of Pharmacy directly for further information.

Issues/Dispute Resolution Procedure

When an issue or dispute arises between student pharmacists, the issue/dispute resolution process starts with communication among the involved student pharmacists. If a satisfactory resolution is not arrived at that level, the matter should then be addressed with the course facilitator or the faculty advisor. If the problem is not resolved at the faculty advisor/course facilitator level, the matter should be brought to the Assistant Dean of Student Affairs, followed by the Dean, in that order. If the matter has not been resolved at those levels, the final arbiter is the Provost/COO.

When an incident arises involving a faculty member, the first step in the issue/dispute resolution process is discussion with the faculty member. If the matter is not satisfactorily resolved at that level, then the matter should be referred to the Department Chair, followed by the Dean, in that order. If the matter has not been resolved at those levels, the final arbiter is the Provost/COO.

When an incident arises involving a staff member, the dispute resolution process begins with the Department Chair, followed by the Dean. The Office of Human Resources is the final arbiter.

Failure to follow this sequence of steps will only serve to delay the appropriate resolution of the issue or dispute as the matter will only be referred back to the correct level in this chain of responsibility.

If student pharmacists wish to file a complaint with the College of Pharmacy regarding a faculty or staff member or another student pharmacist, they may also do so by completing the “Student Complaint Form” that is located on Blackboard in the Pharmacy Student Services course in the course documents.

Standards of Academic Integrity, Professionalism, and Student Conduct

The University Standards of Academic Integrity, Professionalism, and Student Conduct, can be located in the University section of the 2018/2019 catalog. The standards outlined below are in addition to those outlined in the University Catalog. Students are expected to be aware of, and abide by, both University and applicable College policies.

Academic Honesty

Academic honesty includes, but is not limited to, maintaining original assessment answers after the graded examination has been returned, maintaining honesty during assessments, bringing only authorized resources to exams or other assessed exercises, signing only their name on attendance records or team examinations/assignments and giving proper credit when citing another person's work.

Violations of Academic Honesty include all forms of cheating and plagiarism.

Cheating

Cheating is the unauthorized use of information or study guides in any academic exercise. The methods of cheating are varied and well known. Cheating includes, but is not limited to:

- Copying from others during an assessment
- Sharing answers for a take-home assessment
- Using unauthorized notes during an examination
- Taking an assessment for another student.
- Asking or allowing another student to take an assessment for them.
- Tampering with an assessment after it has been corrected, then returning it for more credit than deserved.

Plagiarism

Plagiarism is academic theft. It refers to the use of another's ideas or words without proper attribution or credit. An author's work is his/her property and should be respected by appropriate documentation. Credit must be given:

- For every direct quotation.
- When a work is paraphrased or summarized in whole or in part in their own words.
- For information that is not common knowledge. Information is common knowledge when it appears in several sources about the subject.

There is no distinction between those who violate rules of academic honesty and those who allow it to occur. Work in draft form may also be subject to assessment of plagiarism, so all student pharmacists are encouraged to ensure that their work is free from plagiarism before it is given to a faculty member and/or preceptor for review.

Professional Conduct

Professional conduct includes, but is not limited to, all items as appropriate under the “Professional Standards” section below. All student pharmacists are expected to maintain the highest standards of professionalism at all times.

Professional Standards

Professional Dress and Behavior

Student pharmacists are expected to dress and act appropriately. Student pharmacists are expected to follow all rules established by faculty and preceptors in the classroom, during clinical skills labs, at practice sites and during College-sponsored events. When requested, student pharmacists should use professional attire, such as wearing their white coats.

Respect

Student pharmacists should show respect to their fellow classmates, staff, faculty, colleagues and their patients. As future professionals, each student pharmacist must assume personal responsibility for honesty and integrity.

Professionalism

A more comprehensive description of professionalism expectations for student pharmacists includes:

1. Altruism
 - a. I will place my patients’ best interest above all others.
 - b. I will demonstrate unselfish concern for the welfare of others.
2. Accountability
 - a. I will acknowledge my limitations and seek help from an appropriate source when my knowledge, skills, abilities or judgment is inadequate for the academic or professional circumstance.
 - b. I will assume responsibility for my actions.
3. Excellence
 - a. I will exhibit my best effort in all academic and professional activities and endeavors.
 - b. I will commit to continual self-assessment, development and lifelong learning.
4. Duty
 - a. I will maintain a professional appearance when represented as a student pharmacist.
 - b. I will come prepared and adhere to established times for classes, assessments, laboratories, rotations and meetings.

- c. I will utilize time efficiently and will adhere to established deadlines for projects and assignments.
 - d. I will acknowledge academic priorities over professional and personal activities.
 - e. I will consult with faculty when professional or personal activities conflict with academic responsibilities and give due consideration to their recommendations.
 - f. I will be present and will actively contribute in all team activities.
 - g. I will formulate constructive evaluation of others' performance and will communicate it in a professional manner.
 - h. I will demonstrate respect for patient privacy and maintain strict patient confidentiality.
5. Honor and Integrity
- a. I will honor my commitments to others.
 - b. I will act with honesty and integrity at all times.
 - c. I will adhere to Western University of Health Sciences' Standards of Academic Integrity, Professionalism and Student Conduct as outlined in the University Catalog.
 - d. I will adhere to the profession's code of ethics for pharmacists.
 - e. I will perform all projects and assignments in an objective manner and will give credit to others who were actively involved in the development of ideas and outcomes.
6. Respect for Others
- a. I will use professional language at all times when communicating as a student pharmacist.
 - b. I will maintain a professional attitude/demeanor at all times when communicating as a student pharmacist.
 - c. I will display active listening and show regard in the presence of classmates, faculty, staff, patients and health care professionals.
 - d. I will display sensitivity towards other cultures, races, religions, genders and sexual orientations.
 - e. I will contribute to an environment conducive to learning.
 - f. I will display a positive attitude when receiving constructive feedback.
 - g. I will strive to resolve conflict in a respectful manner.
 - h. I will exhibit empathy, concern and respect for my patients and their representatives.

- i. I will interact with peers, healthcare professionals and patients with integrity and respect.

Reporting Violations

Responsibility of the Student Pharmacist

Because there is no distinction between those who violate rules of academic and professional honesty and those who allow it to occur, student pharmacists have a professional obligation to report violations. Violation of the College of Pharmacy or University Standards of Academic Integrity, Professionalism and Student Conduct should first be reported to those closest to the source of the violation; this may include course faculty, course facilitators, faculty advisors or the Office of the Dean. When appropriate, student pharmacists may report a witnessed violation to the Assistant Dean of Student Affairs, who will maintain the student pharmacist's anonymity.

Responsibility of the Assistant Dean of Student Affairs

Upon receiving a report of academic or professional misconduct from a student pharmacist, the Assistant Dean of Student Affairs will report this violation to the appropriate person involved, course facilitator or Office of the Dean, while maintaining student anonymity.

Academic Misconduct

Responsibility of the Faculty

When faculty observe or are made aware of a violation, they have the authority to handle an incident directly. The following list is meant to be illustrative rather than exhaustive as all faculty reserve the right to impose sanctions based upon their good judgment of the given situation:

- Verbal reprimand and/or moving a student pharmacist during an assessment
- No credit given for the question or assessment
- Assignment of additional work
- Re-examination
- Lowering the course grade.
- Assignment of a "U" grade for the course.

If the faculty member imposes any or all of these remedies, he or she will notify the student pharmacist and submit an "Academic and Professional Misconduct Report Form" to the Office of the Dean. If a student pharmacist receives a "U" grade because of academic misconduct, the student pharmacist is not eligible for course remediation and must repeat the course during the next academic year.

Professional Misconduct

Responsibility of the Faculty and Staff

When faculty or staff observe or are made aware of a violation, they are to complete and Academic and Professional Misconduct Report Form. The completed Form is submitted to the Dean.

The following list of sanctions that can be implemented in established cases of Professional Misconduct is meant to be illustrative rather than exhaustive:

- Write a formal letter of apology.
- May not hold office in any College or University organization for one academic year.
- Complete additional professional activities.
- Write a 10-page report on professionalism and professional conduct in the pharmacy/health care environment.
- Be subject to a conduct suspension.

Responsibility of the Dean

The Dean has the sole authority to adjudicate and impose any sanctions on all academic and professional conduct issues. Once the Dean receives an “Academic and Professional Misconduct Report Form”, the Dean may resolve the matter without convening a hearing before the college’s Student Performance Committee, unless the student requests that a hearing be convened. If the issue is referred to the Student Performance Committee, the Dean will decide and implement any sanctions on the case upon receiving the Committee’s final recommendation. If the Dean resolves the matter without convening a hearing before the Student Performance Committee, the final decision will be reported to the Provost’s Office and included in the student’s file. The student pharmacist may appeal the action of the Dean following policies listed in the General Academic Policies and Procedures section in the Overview Section of this Catalog.

Responsibility of the Student Performance Committee

Upon preliminary investigation, the Student Performance Committee may request that the issue(s) be referred back to the Dean with a rationale as to why this would be a more appropriate venue to address the issue(s). When the Student Performance Committee believes that a case warrants formal investigation, the Committee will appoint a Student Conduct Subcommittee, which shall consist of at least one member of the Student Performance Committee, who shall serve as Chair, two voting faculty members not on the Committee and the Assistant Dean for Student Affairs who will serve as a non-voting member.

As future professionals, each student pharmacist must assume personal responsibility for honesty and integrity.

When dealing with allegations of student pharmacist violations of professional conduct, the Student Performance Committee follows the following procedure. (Please refer to the section of the University catalog for the full hearing procedure).

1. The Committee Chair will notify the student pharmacist in writing of the specific charges and the time and date of the hearing where the charges will be considered by the Committee/Subcommittee.
2. The notice shall state whether dismissal from the University may be considered if the charges are found to be true.

3. If a member of the Student Performance Committee/Subcommittee has a conflict of interest regarding the allegations, the chairperson of the Committee/Subcommittee shall recuse the member and will appoint another faculty member to serve as a member of the Committee/Subcommittee for the purposes of hearing and deliberating on the allegations.
4. Except as noted below, the meeting to consider the charges will be closed to all individuals not directly involved.
5. The Committee/Subcommittee may exclude witnesses except during the time they are testifying.
6. If the notice of the hearing states that dismissal from the University will be considered if the charges are found to be true, or if the circumstances warrant, the student pharmacist may request permission for a mentor to appear at the meeting to assist the student pharmacist.
 - a. The mentor is normally limited to advising the student pharmacist and is not permitted to examine witnesses or otherwise participate directly in the proceedings.
 - b. The student pharmacist shall make any request for a mentor to appear or participate in writing, and the request must identify the mentor the student pharmacist desires and provide any additional information the student pharmacist deems relevant to the request.
 - c. If the allegation involves activities that may result in criminal charges being filed, the student pharmacist's request for a mentor must be granted.
 - d. In other circumstances the Chair of the Committee/Subcommittee will normally inform the student pharmacist within three (3) business days of receipt of the request whether the mentor will be permitted to attend the hearing.
7. If the student pharmacist requests, the specific charges will be read to the student pharmacist by the Chair of the Committee/Subcommittee. If the charges are not read, the charges will be deemed those specified in the notice of the hearing.
8. The student pharmacist will be permitted the opportunity to testify and present evidence and witnesses on his/her behalf.
9. In addition, the student pharmacist, as well as any witnesses, is subject to questioning by members of the Committee/Subcommittee.
10. The student pharmacist will also be provided the opportunity to question witnesses called by the Committee/Subcommittee. If the Subcommittee agrees to consider affidavits, declarations and other written statements and documents as part of its deliberations, the student pharmacist will be provided copies of any such documents at least two (2) days prior to the hearing.
11. If the student pharmacist desires to present any written documents, these documents must be provided to the hearing panel at least two (2) days prior to the hearing. The student pharmacist is responsible for presenting all evidence he/she deems relevant at the scheduled hearing unless such evidence cannot be presented at that time due to circumstances beyond the student

pharmacist's control. Should such be the case, the Chair of the Committee/Subcommittee, at his/her discretion, may grant a continuation of the hearing if warranted.

12. Similarly, if a party or witness called by the Committee/ Subcommittee is unavailable, but whose testimony is considered important to the hearing or due to other circumstances, a continuation of the hearing may also be granted.
13. The Committee/Subcommittee shall determine whether, based on the evidence presented, it is more likely than not that the allegation are in violation of University and/or College conduct policies.
14. As per University catalog, if a violation has been found to have occurred, the Committee will convene a second hearing for the purpose of considering recommended sanctions. The student has the right to present, at this hearing, evidence of any mitigating circumstances that the student believes should be considered. The Committee may consider any prior record of discipline and any other information that is pertinent to recommending sanctions.
15. If a Subcommittee facilitated a Student Conduct hearing, the Student Conduct Subcommittee will forward their recommendation to Student Performance Committee.
16. The Student Performance Committee will review the recommendation and then forward the original recommendation, along with a statement of concurrence or of an alternate recommendation, to the Dean.
17. The Dean will issue the final decision, in writing, to the student.

Maintenance of Records

Student Professional Conduct records will be maintained by the Office of the Dean of the College of Pharmacy for seven years or until the student pharmacist for whom they pertain graduates, unless the Dean determines there is good reason to retain the records longer. In cases where the result is dismissal, records will be maintained indefinitely.

Conduct Suspension

Conduct suspension may be imposed because of conduct/behaviors that are deemed by the Student Performance Committee to be adversely affecting the student pharmacist's pharmacy school performance and ability to engage the subject material, but the behavior-conduct does not, in the opinion of the Committee, warrant a recommendation for dismissal. The student pharmacist would be recommended for conduct suspension for a period of time deemed appropriate by the Student Performance Committee and/or Dean, but generally would not exceed one academic year or until the conditions that provoked the conduct suspension in the first place are satisfactorily remedied in the opinion of the Student Performance Committee/Dean.

Appeal Process

Student pharmacists may appeal decisions regarding suspension, student conduct academic progression/promotion and graduation according to the regulations listed in the Student Appeal Process section of the University Catalog.

Standards of Academic Progress

Student pharmacists are required to maintain a cumulative 2.00 grade point average (GPA) during the didactic portion of the curriculum. The academic year is divided into two academic terms with the first (fall) term consisting of courses offered between August and December and the second (spring) term consisting of courses offered between January and May.

The student pharmacist's cumulative GPA will be calculated at the end of each academic term. For the first and second years, an academic term is equal to a semester. For the third year, the academic "didactic term" includes courses PHRM 6301-6306, while the "APPE" term includes courses R1-R2.

Student Performance Committee

The College of Pharmacy Student Performance Committee is charged with the following responsibilities: (a) to periodically review the academic achievement and comprehensive evidence of progress of all student pharmacists who are pursuing the PharmD degree (particular attention will be given to student pharmacists in academic difficulty as their grades are made available to the Committee by the Registrar and/or the Executive Associate Dean) and (b) to receive reports from the College Dean regarding any student pharmacist whose professional or personal conduct is deemed unsatisfactory. Appropriate professional and personal conduct is defined by the University's and College's codes of professional conduct (refer to Standards of Academic and Professional Conduct section above and/or the University Catalog).

Academic Progression in the Didactic Curriculum

The Student Performance Committee will review each student pharmacist's progress at the end of each academic term. Student pharmacists must complete all courses successfully in a subordinate year of the program before they can progress to the next year in the program. In addition, student pharmacists must complete all didactic courses successfully before they will be allowed to start the Advanced Pharmacy Practice Experience portion of the curriculum.

Eligibility to Participate in Advanced Pharmacy Practice Experiences (APPEs)

Student pharmacists may not start an APPE until the Student Performance Committee has been notified that all courses have been successfully completed. The Student Performance Committee will ensure that student pharmacists are academically eligible to begin APPE's. Student pharmacists with less than a 2.00 cumulative GPA following the third year didactic term cannot begin the APPE portion of the curriculum and will automatically be placed on academic suspension (see "Academic Suspension", below).

Progression to the Fourth Professional Year

Student pharmacists must have completed at least two APPE's successfully in their P3 year to progress to the fourth year of the program. Exceptions to this policy will be considered on a case-by-case basis.

Graduation

A student pharmacist will be recommended for the Doctor of Pharmacy degree if the student pharmacist meets the following:

1. Is not on probation or suspension and has completed all prescribed academic and clinical requirements with a cumulative grade point average of or above 2.00. In addition, student has no outstanding grade of "I", "NCR" or "U" in coursework required for completion of the PharmD

degree. (**Exception:** Student pharmacists entering in fall 2015 and beyond are required to complete four units of elective coursework. Students with a “NCR” or “U” grade in an elective course may still graduate as long as they have successfully completed the four unit elective requirement.)

2. Has demonstrated no serious deficiencies in ethical, professional or personal conduct, as defined in University Catalog, “General Academic Policies and Procedures” section, which would make it inappropriate to award the degree of Doctor of Pharmacy.
3. Has complied with all legal and financial requirements of the University, as stated in the University Catalog.
4. Has attended in person and participated in the Commencement ceremony at which time the Doctor of Pharmacy degree is conferred. Unless special permission has been granted by the Dean, each student pharmacist must participate in his or her respective commencement ceremony. If the Dean grants special permission for excusal from commencement, the graduate may be required to present himself or herself to the Dean or their designee at another specified date to take their profession’s oath before their diploma will be released. Requests for excusal will only be granted for extenuating circumstances, such as a prior military commitment.

Student pharmacists may participate in commencement activities provided they will complete all requirements of the program by December 31 of that calendar year. No student pharmacist will receive his or her degree until all requirements for graduation have been completed. Degrees will be dated as appropriate to completion date.

Adverse Actions

Academic Probation

The Executive Associate Dean will automatically place student pharmacists on academic probation under the following circumstances (see University Catalog section on General Academic Policies and Procedures in the Overview section):

1. A student pharmacist earns a failing (“U”) grade in any didactic course (see section on “Remediation of Courses in the Didactic Curriculum”).
2. A student pharmacist does not achieve the required 2.00 cumulative GPA at the end of the academic year for which they are enrolled. Student pharmacists placed on academic probation for having less than 2.00 at the end of the academic year will be required to remediate or repeat all coursework in which they received a “U” grade for the same academic year for which the student pharmacist’s cumulative GPA was below 2.00 (see section on “Remediation of Courses in the Didactic Curriculum”).
3. The first time a student pharmacist receives a failing grade for IPPE1 and/or IPPE 2 or any APPE rotation (see section regarding Failure to Meet Standards – First APPE Rotation Actions).
4. A student pharmacist receives a failing (“NCR”) grade during the Advanced Elective rotation (see section regarding Failure to Meet Standards – Advanced Elective Rotation Action).

Student pharmacists in Year 2 (P2) of the professional program may be asked to complete the IPPE2 (PHRM 6999) summer rotation requirement even if they have failed the didactic component that would require them to repeat the year.

Student pharmacists successfully completing IPPE-1 5998 and 5999, IPE-2 6999, IPE 5000, IPE 5100, IPE 6000 and/or IPE 6100 (i.e., received a CR grade) will not have to retake those requirements when repeating courses or returning from a leave of absence.

The Executive Associate Dean will notify the student pharmacist in writing of the action. When a student pharmacist has been placed on probation, the following apply:

1. The student pharmacist may not hold office in any University or College organization.
2. Within 2 weeks of the date that the student pharmacist receives notification of his/her academic probation, the student pharmacist must meet with:
 - a. The Learning Enhancement and Academic Development (LEAD) office staff to develop an academic action plan. The student pharmacist must obtain a signature from the LEAD office documenting agreement on the action plan.
 - b. The student pharmacist's faculty advisor to review the student pharmacist's proposed improvement plan. The student pharmacist must obtain a signature from the faculty advisor documenting agreement on the action plan.
 - c. The Executive Associate Dean to provide the required signed documentation.
 - d. The Assistant Dean of Student Affairs, if it is determined that non-academic issues (e.g., illness, family emergency, death or acute or chronic illness of an immediate family member, divorce or other personal family concerns) are impacting academic performance.

In addition, student pharmacists are encouraged to seek regular assistance from any University or College resource deemed necessary to improve his or her academic performance over the duration of probation.

Financial Aid Warning Policy (Title IV and Title VII)

If a student pharmacist is not making Satisfactory Academic Progress (SAP) they may be placed on "Financial Aid Warning" status for the next payment period and continue to receive financial aid for that period. Financial Aid is any financial assistance offered to the student pharmacist for paying for their education, such as loans, scholarships, Federal Work-Study, grants and stipends (judged on the criteria of the stipend). Student pharmacists who fail to make SAP by the end of the payment period lose Financial Aid eligibility.

It is the policy of the Financial Aid Office (FAO) that once a student pharmacist has been placed on academic probation for not meeting SAP standards as defined by the college, the FAO will automatically place the student pharmacist in a Financial Aid Warning status. During the next academic term, if the student pharmacist does not meet SAP standards and the college places the student pharmacist on academic suspension, the student pharmacist will no longer be eligible for financial aid. If the student pharmacist appeals the academic suspension and the appeal is approved, financial aid will be reinstated. If the student pharmacist is directed to audit courses, those courses will not be covered by financial aid.

Tutorial Assistance Program

A Tutorial Assistance Program (TAP) has been established to assist student pharmacists experiencing academic difficulty. Student pharmacists will be recommended for this program by a faculty advisor or professor. Student pharmacists may also self-identify to TAP to receive assistance. The tutors will be chosen on the recommendation of the faculty in each discipline. Group tutoring is the methodology most used by the TAP department. For assistance, contact the Learning Enhancement and Academic Development Office (LEAD).

Remediation for Courses in the Didactic Curriculum

A student pharmacist who receives a “U” grade in a required didactic course must remediate the course successfully to progress in the curriculum. However, a maximum of only two “U” grades are remediable per academic year (or at the end of the third year didactic term). A student pharmacist receiving more than two “U” grades during any academic year of the required didactic courses in the curriculum will be ineligible for remediation and will be required to repeat the year in which the “U” grades were received. As per University guidelines, the student will be automatically placed on academic suspension during this time. This rule will apply regardless of the GPA of the student pharmacist at the time of receiving more than two “U” grades. Student pharmacists repeating the year will have to retake only those courses for which they received the “U” grades. No remediation is allowed for student pharmacists who receive a “U” grade in a repeated course (see section on “permanent dismissal for academic reasons”). A student pharmacist cannot repeat any given year of the curriculum more than once, under any circumstances.

Remediation is not a substitute for full course participation. To be eligible for remediation, a student pharmacist must have taken all exams, completed all course assignments and participated in all graded activities, unless excused (refer to Course Participation and Attendance section). Student pharmacists who have not completed all course-assessed activities are not eligible for course remediation.

Remediation should include a joint (faculty and student pharmacist) diagnostic evaluation of the student pharmacist’s weaknesses, a self-directed plan for strengthening the student pharmacist’s weaknesses with periodic reviews in consultation with the facilitator, followed by a comprehensive assessment, as recommended by the course facilitator, over the entire course material.

The Student Performance Committee, in consultation with the course facilitators, will set the remediation schedule. First and second year student pharmacists will have their remediation exams scheduled during the month of June. Third year student pharmacists will remediate failed courses prior to beginning the Advanced Pharmacy Practice Experiences (APPE) and will be required to take R-1 as an “off” rotation. Student pharmacists will be informed of the remediation dates via email with at least 72 hours advance notice. Student pharmacists who require remediation but are unable to make themselves available on the designated examination date will not be allowed to progress in the curriculum and will be placed on academic suspension. They will be required to repeat the course at the next regularly scheduled offering.

Student pharmacists who require remediation are encouraged to share their June/February plans with the appropriate course facilitators prior to the remediation dates being determined. Once the remediation dates are confirmed, there will be no changes made to accommodate student pharmacist requests. There will be no make-up remediation examinations.

Student pharmacists must pass the remediation examination and all other required assignments in order to pass the course.

After completing a remediation examination, the highest grade that a student will be able to achieve for the course will be a “C”.

Student pharmacists who fail the remediation exam will not be allowed to progress to the next year and must repeat the course at its next offering.

Remediation for Courses in the Elective Curriculum

There will be no remediation for the didactic elective courses. Student pharmacists receiving a “U” grade or a “No Credit” grade must fulfill the required credits by retaking the same course or a different elective course. Student pharmacists may choose to take the seminar elective courses for up to 2 semesters.

Academic Suspension

As per University and College guidelines student pharmacists who are deemed unable to continue in the curriculum due to inadequate performance and are required to repeat a given academic year or portion thereof, will be placed on academic suspension through such time as they can resume their studies by starting the courses the student is required to repeat. Throughout the time the student is on academic suspension, he or she is also on academic probation, and remains on academic probation until all coursework has been satisfactorily remediated.

Permanent Dismissal for Academic Reasons

A student pharmacist may be permanently dismissed from the program if he/she fails to accomplish course-learning objectives and/or fails to achieve academic expectations even after granted the opportunity to repeat coursework. A student pharmacist will be permanently dismissed when:

1. A student pharmacist earns a failing grade (“U”) in any four (4) required courses during the first year of the curriculum (P1). This rule does not apply to incoming IPBP students.
2. A student pharmacist earns a failing grade (“U”) in any required course that the student pharmacist is repeating.
3. A student pharmacist fails to earn a semester GPA of 2.00 by the end of the first term of repeated coursework.
4. A student pharmacist fails to earn a cumulative GPA of 2.00 at the end of the academic year for which the student pharmacist was placed on probation previously.
5. A student pharmacist earns a failing grade (“U”) in a required course after remediation during a repeat year regardless of GPA.
6. A student pharmacist currently repeating coursework due to sub-standard academic performance is found in violation of the University’s or College’s Standards for Academic and Professional Conduct at a level that merits course failure or repeating the course.
7. A student pharmacist fails (receives an “NCR” grade) any APPE rotation after the student has been required to re-start the APPE rotation sequence due to failure to meet performance standards for the APPE rotations (see section regarding Failure to Meet Standards – Second APPE Rotation Actions).

8. A student pharmacist fails any IPPE (1 and/or 2) rotation after the student pharmacist has been required to re-start the IPPE rotation sequence due to failure to meet performance standards for the IPPE rotations (see section regarding Failure to Meet Standards – IPPE Rotation Actions).

Failure to Meet Standards – IPPE Rotation Actions

When a student pharmacist receives a failing or incomplete (I) grade in a pharmacy practice experience, the Associate Dean for Experiential and Professional Affairs or his/her designee will notify the Executive Associate Dean in a timely manner upon which the student pharmacist will be placed on Academic Probation.

Student pharmacists must repeat any pharmacy practice experience in which a failing grade is issued. The experience must be repeated with a WesternU-paid, full-time faculty member. If the failing grade is earned in an experience for which no WesternU-paid, full-time faculty member is available to serve as preceptor, the student pharmacist will retake the experience with a preceptor selected by the Associate Dean for Experiential and Professional Affairs.

Receipt of a failing grade for any repeat IPPE experience may result in permanent dismissal from the PharmD program.

In the event that an “I” grade is converted into a failing grade, the terms and conditions governing the receipt of a first failing grade in an IPPE rotation will be followed.

Failure to Meet Standards – First APPE Rotation Actions

APPE grades are assigned by the Associate Dean for Experiential and Professional Affairs, and are primarily based upon the evaluations submitted by each student pharmacist’s preceptor. In the case of a student pharmacist not reporting to a pharmacy practice experience without an appropriate excused absence, the Associate Dean for Experiential and Professional Affairs shall report a grade of “NCR”.

When a student pharmacist receives a “NCR” or incomplete (I) grade, the Associate Dean for Experiential and Professional Affairs or his/her designee will notify the Executive Associate Dean in a timely manner. The student pharmacist will be allowed to continue with their scheduled pharmacy practice experiences, but will be placed on Academic Probation by the Executive Associate Dean.

Student pharmacists must repeat any pharmacy practice experience in which an “NCR” grade is issued. The experience must be repeated with a WesternU-paid, full-time faculty member. If the “NCR” grade is earned in an experience for which no WesternU-paid, full-time faculty member is available to serve as preceptor, the student pharmacist will retake the experience with a preceptor selected by the Associate Dean for Experiential and Professional Affairs.

In the event that an “I” grade is converted into a “NCR” grade, the terms and conditions governing the receipt of a first “NCR” grade in an APPE rotation will be followed. Pharmacy practice experiences that need to be repeated should, where possible, be made up during the student pharmacist’s designated “off rotation”. Should a student pharmacist need to make up an experience after a designated “off rotation” has been completed, the experience must be made up after the scheduled Advanced Elective Rotation. No “split” pharmacy practice experiences will be allowed. To monitor the quality of a student pharmacist’s performance on APPEs, all student pharmacists must complete at least one APPE with a preferred experiential site (as defined by the Office of Experiential Education) with preference being given to voting,

full-time faculty members of the College. If a student pharmacist fails this required APPE assignment, he/she must complete another APPE successfully with another voting, full-time faculty member.

Receipt of a failing grade for any repeat APPE experience may result in permanent dismissal from the PharmD program.

Failure to Meet Standards – Second APPE Rotation Actions

In the event that a student pharmacist receives a “NCR” grade for a second APPE, the student pharmacist will be placed on academic suspension and required to repeat the entire APPE sequence (six (6) experiences).

Student pharmacists will be able to re-start/repeat the APPE sequence only once. Thus, student pharmacists repeating the APPE sequence cannot fail any further pharmacy practice experiences. Receipt of an “NCR” grade for any experience after re-starting the APPE sequence may result in permanent dismissal from the PharmD program.

Failure to Meet Standards – Advanced Elective Rotation

When a student pharmacist receives a “NCR” or an incomplete grade, “I”, in the 16-week Advanced Elective (AE) program, the Associate Dean for Experiential and Professional Affairs or his/her designee will notify the Executive Associate Dean in a timely manner. If a student pharmacist receives a grade of “NCR” for an Advanced Elective, he/she will be placed on academic probation by the Executive Associate Dean. The student pharmacist must repeat the AE in which the “NCR” grade was issued with a WesternU paid, full-time faculty member at a time that is mutually agreed upon by the Associate Dean for Experiential Education and Professional Affairs and the preceptor. If this “NCR” grade is earned in an AE for which there is no WesternU full-time, paid faculty member to serve as preceptor, the student pharmacist will complete the AE with a preceptor selected by the Associate Dean for Experiential and Professional Affairs at a time that is mutually agreed upon by the Associate Dean for Experiential and Professional Affairs and the designated preceptor. Student pharmacists who receive a “NCR” grade for an AE will not be eligible to graduate until the AE is repeated successfully and a grade of “CR” is recorded.

Appeal Process

Student pharmacists may appeal decisions regarding suspension, student conduct, academic progression/promotion and graduation according to the regulations listed in the Student Appeal Process section of the University Catalog.

Evaluation and Grading

Student pharmacists are required to meet a specified set of outcome objectives in each course as described in each course syllabus/block plan. The course facilitator will provide student pharmacists with the learning objectives, instructional methods, assessment strategies, schedules and the grading criteria, in writing, prior to the beginning of each course. Achievement of course learning objectives will be based on performance on individual quizzes, examinations and on any other graded assignments or criteria, including team or independent Pass/No Pass assessments, established by the course facilitator.

Grading Scales

Course grades, including those for Introductory Pharmacy Practice Experiences (IPPE-1A (PHRM 5998), IPPE-1B (PHRM 5999) and IPPE-2 (PHRM 6999) will be assigned as follows grades are rounded to the nearest percent):

<u>Grade</u>	<u>Equivalent</u>	<u>GPA Points</u>
A	90-100%	4.00
B	80-89%	3.00
C	70-79%	2.00
U	Less than 70%	0.00

Grading criteria for the Introductory Pharmacy Practice Experiences (IPPE-1A, IPPE-1B and IPPE-2) are described in their individual course syllabi. Grading for the Advanced Pharmacy Practice Experiences (APPEs) is described in detail in The Syllabus for Advanced Pharmacy Practice Experiences.

Grades for Advanced Pharmacy Practice Experiences (APPEs) /Advanced Electives (AE) grades will be assigned as follows:

<u>Grade</u>	<u>Equivalent</u>	<u>GPA Points</u>
CR	Credit	N/A
NCR	No Credit	N/A

Grading for the Interprofessional Education (IPE) courses (IPE 5000, IPE 5100, IPE 6000, and IPE 6100) is described in their individual course syllabi. Grades in these courses will be assigned as follows:

<u>Grade</u>	<u>Equivalent</u>	<u>GPA Points</u>
CR	Credit	N/A
NCR	No Credit	N/A

Administrative Grades

<u>Grade</u>	<u>Equivalent</u>	<u>GPA Points</u>
AU	Audit	N/A
I	Incomplete	N/A
W	Withdrawal	N/A
M	Missing	N/A
WPC	Waived for Prior Credit	N/A

Audit

An “AU” (Audit) is assigned to a student who pays tuition for the course and attends class activities but does not complete examinations and does not receive course credit. However, under certain circumstances, at the discretion of the College Dean, a student who is repeating or undergoing remediation may be required to complete course examinations and/or other required work products while auditing the course for no grade.

Missing Grades

A grade of ‘M’ for Missing will be input by the Office of the Registrar if a student’s grade is not available by the deadline for grade submission. An ‘M’ grade is not included in the GPA calculation and will be replaced by the grade earned in the course once submitted by the course director/instructor. ‘M’ grades should not be used by the program in place of an incomplete, “I”, grade.

Incomplete grade, “I”

A course facilitator has the option of assigning an incomplete grade under the following circumstances:

1. A student pharmacist has a verifiable “Excused Absence” for missing an assessed activity due to a verifiable “Excused Absence” (see Course Participation and Attendance).
2. Course facilitators are responsible for identifying the most appropriate methods(s) for assessing student pharmacists’ mastery of specific skills and/or topics. For some assessed activities, course facilitators may specify within a course block plan that sub-standard performance on specific assessed activities can result in “I” grades. Typically, this will apply to skills for which student pharmacists must demonstrate mastery before proceeding to more advanced topics or skills.

The following describes the process necessary for resolving an incomplete grade.

The student pharmacist is responsible for meeting with the course facilitator to receive direction regarding what is necessary to resolve the incomplete grade. In a meeting between the student pharmacist and the course facilitator issuing the “I” grade, an Incomplete Contract Form must be completed. The form is available from the College of Pharmacy Academic and Student Affairs Office or from the Registrar’s intranet site. The Contract Form stipulates the requirements of the student pharmacist that are needed to remove the incomplete grade. The original form will be kept by the course facilitator. Copies of the form must be sent to the student pharmacist, to the College of Pharmacy Assistant Dean of Student Affairs (for inclusion in the student pharmacist’s file), and to the Registrar’s Office.

The grade of “I” is not to be awarded in place of a failing grade or when the student pharmacist is required to repeat the course. In such a case, a grade other than the “I” must be assigned. The incomplete, “I”, grade remains on the transcript. In the event that an “I” grade is carried into a new academic year the Dean may conditionally promote the student pharmacist to the next academic year in the program pending the satisfactory clearance of the incomplete grade.

If a student pharmacist fails to comply with the conditions outlined in the notification, or fails to satisfactorily convert the incomplete grade to a passing grade, the incomplete grade will be converted to a “U” grade (if the “I” grade was issued in a didactic course) or to an “NCR” grade (if the “I” grade was issued in an experience course). The student pharmacist will be placed on academic suspension and will be required to repeat the course at the next regularly scheduled offering.

In the event that the “I” grade is converted to a “U” grade; the student pharmacist’s GPA will be recalculated. If there are any consequences for academic progression, the consequences will be effective the same day the incomplete grade is changed (see Failure to Meet Standards).

Grade Reports

Official grades are turned in to the Registrar by the faculty of the College of Pharmacy, at which time the Student Portal, you.westernu.edu, is updated. Official grade reports and unofficial transcripts will be available on the Student Portal throughout the academic year.

Course Grade Appeals

Faculty has the expertise and authority to render judgment regarding the quality of a student pharmacist’s academic work. The course facilitator has final responsibility in assigning grades to activities assessed within a course. A grade appeal shall be confined to charges of unfair action toward an individual student pharmacist and may not involve a challenge of an instructor’s grading standard. In all instances, a student pharmacist who believes that an appropriate grade has not been assigned must first seek to resolve the matter informally with the course facilitator. If the matter cannot be resolved informally, the student pharmacist may then submit an appeal. The Assistant Dean of Student Affairs may counsel the student pharmacist prior to submitting the appeal.

Course Grade Appeals will only be considered when they meet the following required criteria:

1. Only the final grade in a course may be appealed. In the absence of compelling reasons, such as clerical error, prejudice or capriciousness, the grade assigned by the course facilitator is to be considered final. The course facilitator has final decision regarding:
 - a. Any questions or concerns related to grades assigned to specific course assessments.
 - b. Any questions or concerns relating to specific test/exam questions.
 - c. Any questions or concerns related to the interpretation of grading criteria for assessing mastery of course material.
2. In a grade appeal, only arbitrariness, prejudice/bias and/or error will be considered as legitimate grounds for an appeal:
 - a. **Arbitrariness:** The grade awarded is not indicative of the student pharmacist’s academic performance on record and represents such a substantial departure from accepted academic norms as to demonstrate that the facilitator did not follow College policy or the course syllabus.
 - b. **Prejudice/Bias:** The grade awarded was motivated by ill will or preconceived notions of poor student performance by the facilitator/faculty.
 - c. **Error:** The facilitator made a mistake. There was a computation error resulting in an incorrect final grade but the facilitator refuses to correct the error. This procedure does not cover instances where student pharmacists have been assigned grades based on academic dishonesty, academic misconduct or violation of the assessment day policy.
3. In order for a Grade Appeal to be considered, the student pharmacist must:

- a. Submit the grade appeal in writing to the Assistant Dean of Student Affairs within five business days of the final posting of the grade.
- b. Specify in the written appeal how the Required Criteria (above) apply to the situation.
- c. Provide specific documentation/evidence in support of the applicable Required Criteria.

The appeal shall be submitted to the Assistant Dean of Student Affairs who, upon receipt, will forward a copy of the appeal to the Chair of the Student Performance Committee. If the Student Performance Committee, upon review of the appeal, believes that the case warrants formal investigation, the Committee may decide to investigate the matter or decide that a Grade Appeals Sub-Committee will be appointed. If the Committee elects to investigate the matter, they may request a meeting with the student before deliberating on the appeal at hand.

If a Grade Appeals Sub-Committee is appointed, it shall consist of at least one member of the Student Performance Committee, who shall serve as Chair, two voting faculty members not on the Committee, and one student pharmacist representative. All members of the Grade Appeals Sub-Committee have full voting privileges.

The Grade Appeals Sub-Committee will conduct its own investigation in conjunction with such an appeal following established procedural guidelines for handling student appeals of an academic nature. The student pharmacist making the appeal will be invited to meet with the Grade Appeal Sub-Committee to substantiate his/her appeal. The Grade Appeals Sub-Committee will forward their recommendation to the Student Performance Committee. The Student Performance Committee will review the recommendation and then forward the original recommendation, along with a statement of concurrence or of an alternate recommendation, to the Dean. Should the Student Performance Committee elect to investigate the matter, it will follow the same procedures as the Grade Appeal Sub-Committee, and forward the Committee's recommendation to the Dean. The Dean's decision on the grade earned by the student pharmacist is final.

Credit Hour Calculation

The College of Pharmacy calculates credit hours as follows:

- 15 hours of lecture = 1 credit hour
- 30 hours of workshops/discussions/laboratory = 1 credit hour
- For IPPE courses (PHRM 5998, 5999 and 6999), 40 contact hours = 1 credit hour
- For APPE (PHRM 7000-level courses) and AE (PHRM 8400), 40 contact hours = 1 credit hour

Curriculum Organization

Year 1

The 5000 series is assigned to didactic blocks in the Basic Science Foundations and Professional Practice Foundation blocks for the first-year pharmacy student pharmacists (P1).

Year 1, Fall Semester, PharmD		
Course	Title	Credit Hours
IPE 5000	Patient Centered Cases I	1.00
PHRM 5110	Introduction to Pharmacy and Healthcare Systems	2.00
PHRM 5111	Foundations of Pharmacy Practice and Self Care Therapeutics I	4.00
PHRM 5221	Pharmacological Basis of Therapeutics I	3.50
PHRM 5222	Pharmacological Basis of Therapeutics II	3.00
PHRM 5301	Pharmaceutics/Biopharmaceutics I	3.50
PHRM 5401	Immunology	3.50
PHRM 5998	Introductory Pharmacy Practice Experience 1A	2.00
PHRM ELEC	Elective Courses	0.00 - 4.00
Semester Total:		22.50 – 26.50
Year 1, Spring Semester, PharmD		
Course	Title	Credit Hours
IPE 5100	Patient Centered Cases II	1.00
PHRM 5112	Foundations of Pharmacy Practice and Self Care Therapeutics II	4.00
PHRM 5113	Research Methods and Biostatistics	1.00
PHRM 5114	Pharmacy Calculations (On-line)	1.00
PHRM 5223	Pharmacological Basis of Therapeutics III	3.00
PHRM 5224	Pharmacological Basis of Therapeutics IV	3.50
PHRM 5302	Pharmacogenomics and Pharmaceutics	3.00
PHRM 5501	Pharmacokinetics	3.50
PHRM 5999	Introductory Pharmacy Practice Experience IB	2.00
PHRM ELEC	Elective Courses	0.00 - 4.00
Semester Total:		22.00 – 26.00
Year 1 Total:		44.50 – 48.50

Year 2, Year 3 – Fall Semester

The 6200 series describes the didactic curriculum for second-year student pharmacists (P2). The 6300 series denotes the didactic curriculum for the first half of the third year (P3). The series of Pharmacy Practice blocks (6201 – 6306) presents topics and accompanying skills that lay the foundation for the practice of pharmacy. The focus of the pharmacy practice blocks is to teach student pharmacists how to integrate the knowledge, skills and attitudes necessary for patient-centered practice in a variety of areas in pharmacy practice. An introduction to the epidemiology, evidence-based medicine, genomics, literature evaluation, pathophysiology, clinical pharmacokinetics and therapeutics relevant to various disease states and syndromes are covered in these blocks. In addition, a variety of skills and screening tools used to assess and monitor therapeutics effectiveness are expected to be mastered. Emphasis is placed on the principles addressing pharmaceutical care; pharmacoconomics; pharmacy management; ethical, legal, and professional responsibilities; assessment, evaluation, and dissemination of drug information; written and verbal communication and drug distribution. The overall goal of each block is to

enable student pharmacists to integrate their knowledge of the disease state topic(s) presented in the context of formulating an individualized pharmacotherapeutics plan for a given patient. Emphasis is placed on communication skills that assess a student pharmacist's ability to educate health professionals and patients regarding lifestyle changes and drug therapy for specific diseases in a clear, concise and organized manner. Collaboration with peers (teams) occurs in each block in order to teach student pharmacists how to work with others.

Pharmacy Practice blocks 6205, 6210 and 6306 are designed to allow the student pharmacist an opportunity to strengthen and expand their knowledge and skills in the content areas previously covered while exploring some aspects of disease states in greater depth or breadth. Student pharmacists engage in team discussions that incorporate and integrate aspects of those disease states previously covered. Skills (e.g., counseling, patient education, calculation applications, drug information and drug monitoring activities) relevant to the practice of pharmacy will be practiced during these blocks. The blocks consist of series of assessments to ensure retention and integration of knowledge and skills acquired in previous blocks.

Year 2, Fall Semester, PharmD		
Course	Title	Credit Hours
IPE 6000	Team Training in Healthcare I	1.00
PHRM 6201	Pharmacy Practice I	4.00
PHRM 6202	Pharmacy Practice II	4.00
PHRM 6203	Pharmacy Practice III	4.00
PHRM 6204	Pharmacy Practice IV	4.00
PHRM 6205	Pharmacy Practice V	3.50
PHRM ELEC	Elective Courses	0.00 - 4.00
Semester Total:		20.50 – 24.50
Year 2, Spring Semester, PharmD		
Course	Title	Credit Hours
IPE 6100	Team Training in Healthcare II	1.00
PHRM 6206	Pharmacy Practice VI	4.00
PHRM 6207	Pharmacy Practice VII	4.00
PHRM 6208	Pharmacy Practice VIII	4.00
PHRM 6209	Pharmacy Practice IX	4.00
PHRM 6210	Pharmacy Practice X	3.50
PHRM 6999	Introductory Pharmacy Practice Experience 2	4.00
PHRM ELEC	Elective Courses	0.00 - 4.00
Semester Total:		24.50 – 28.50
Year 2 Total:		45.00 – 49.00
Year 3, Fall Semester, PharmD		
Course	Title	Credit Hours
PHRM 6301	Pharmacy Practice XI	4.00
PHRM 6302	Pharmacy Practice XII	4.00
PHRM 6303	Pharmacy Practice XIII	4.00
PHRM 6304	Pharmacy Practice XIV	4.00
PHRM 6305	Pharmacy Practice XV	3.50
Semester Total:		19.50

Year 3 – Spring Semester, Year 4

The Advanced Pharmacy Practice Experiences (APPEs) provide one year of supervised clinical education. Student pharmacists advance their knowledge in areas such as taking drug histories, providing patient education, interpreting diagnostic data and dispensing and compounding medications. The 7000 series are designated for the APPE rotations. All PharmD and IPBP student pharmacists are required to complete PHRM 7110, 7120, 7210, 7220, 7330 and 7340. The 8000 series is designed for elective coursework. The elective program is a capstone experience designed to prepare the student pharmacist for his/her role as an entry-level practitioner. Electives are offered in areas such as research, teaching and advanced clinical practice. A project is required of each student pharmacist. Student pharmacists must complete 20 units of elective coursework in the 8000 series.

Year 3, Spring Semester, PharmD		
Course	Title	Credit Hours
PHRM 6306	Pharmacy Practice XVI	4.00
APPE R1*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
APPE R2*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
Semester Total:		12.00 – 20.00
Year 3 Total:		31.50 - 39.50
Year 4, Fall Semester, PharmD		
Course	Title	Credit Hours
APPE R3*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
APPE R4*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
APPE R5*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
APPE R6*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
APPE R7*	PHRM 7110, 7120, 7210, 7220, 7330 or 7340	8.00
Semester Total:		32.00 – 40.00
Year 4, Spring Semester, PharmD		
Course	Title	Credit Hours
PHRM 8400	Advanced Electives	20.00
Semester Total:		20.00
Year 4 Total:		52.00 – 60.00

**Student pharmacists will take one of the APPE rotations as an “OFF” rotation, and do not earn course credit during this time.*

Curriculum Organization (IPBP Track)

Year 1

Year 1, Fall Semester, IPBP		
Course	Title	Credit Hours
IPE 6000	Team Training in Healthcare I	1.00
PHRM 5601	Overview of Clinical Practice	4.00
PHRM 6201	Pharmacy Practice I	4.00
PHRM 6202	Pharmacy Practice II	4.00
PHRM 6203	Pharmacy Practice III	4.00
PHRM 6204	Pharmacy Practice IV	4.00
PHRM 6205	Pharmacy Practice V	3.50
PHRM ELEC	Elective Courses	0.00 – 3.00
Semester Total:		24.50 – 27.50
Year 1, Spring Semester, IPBP		
Course	Title	Credit Hours
IPE 6100	Team Training in Healthcare II	1.00
PHRM 6206	Pharmacy Practice VI	4.00
PHRM 6207	Pharmacy Practice VII	4.00
PHRM 6208	Pharmacy Practice VIII	4.00
PHRM 6209	Pharmacy Practice IX	4.00
PHRM 6210	Pharmacy Practice X	3.50
PHRM 6999	Introductory Pharmacy Practice Experience II	4.00
PHRM ELEC	Elective Courses	0.00 – 3.00
Semester Total:		24.50 – 27.50
Year 1 Total:		49.00 – 52.00

Year 2

Year 2, Fall Semester, IPBP		
Course	Title	Credit Hours
PHRM 6300	Introductory Pharmacy Practice Experience I - IPBP	4.00
PHRM 6301	Pharmacy Practice XI	4.00
PHRM 6302	Pharmacy Practice XII	4.00
PHRM 6303	Pharmacy Practice XIII	4.00
PHRM 6304	Pharmacy Practice XIV	4.00
PHRM 6305	Pharmacy Practice XV	3.50
Semester Total:		23.50
Year 2, Spring Semester, IPBP		
Course	Title	Credit Hours
PHRM 6306	Pharmacy Practice XVI	4.00
APPE R1*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
APPE R2*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
Semester Total:		12.00 - 20.00
Year 2 Total:		35.50 - 43.50

Year 3

Year 3, Fall Semester, IPBP		
Course	Title	Credit Hours
APPE R3*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
APPE R4*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
APPE R5*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
APPE R6*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
APPE R7*	PHRM 7110, 7120, 7210, 7220, 7330, or 7340	8.00
Semester Total:		32.00 - 40.00
Year 3, Spring Semester, IPBP		
Course	Title	Credit Hours
PHRM 8400	Advanced Electives	20.00
Semester Total:		20.00
Year 3 Total:		52.00 - 60.00

**Student pharmacists will take one of the APPE rotations as an "OFF" rotation, and do not earn course credit during this time.*

Course Descriptions

Blocks listed in this catalog are subject to change through established academic channels. New blocks and changes in existing blocks are approved by the College of Pharmacy Curriculum Committee and the Faculty.

All courses are awarded letter grades, except when indicated otherwise.

IPE 5000 Patient Centered Cases I – An Interprofessional Approach (1.0 credit, CR/NCR)

IPE 5000 is offered as part of the college curriculum for all first year health professional students. It is a University requirement for graduation for all participating colleges. The course is designed to prepare the healthcare student to practice patient-centered collaborative care through a team approach. Working in small interprofessional teams, students will explore cases representing conditions across the lifespan. Course competencies for IPE 5000 include communication, collaboration and understanding scope of practice. In order to receive course credit, the minimum acceptable grade is 80%.

IPE 5100 Patient Centered Cases II – An Interprofessional Approach (1.0 credit, CR/NCR)

Continuation of IPE 5000.

IPE 6000 Team Training in Healthcare I (1.0 credit hour, CR/NCR)

IPE 6000 will continue to build upon the knowledge from the IPE 5000 series, but will expand upon that knowledge and require the student to learn and apply advanced tools and strategies that are crucial to develop a collaborative healthcare team. The majority of the course is independent study with students engaging in a large-scale tabletop activity where they apply team tools necessary to solve a healthcare dilemma.

IPE 6100 Team Training in Healthcare II (1.0 credit hour, CR/NCR)

Continuation of IPE 6000.

PHRM 5110 Introduction to Pharmacy and Healthcare Systems (2.0 credits)

Introduction to Pharmacy and Healthcare Systems (PHRM 5110) will introduce the student pharmacist to the knowledge, skills and attitudes necessary for: 1) successful completion of the PharmD curriculum and 2) active participation in elevating pharmacy practice for the public benefit. The course will provide a foundational primer on healthcare systems and the pharmacists' critical role in these systems. Topics include challenges in contemporary pharmacy practice, the role of the pharmacist as a health care provider, ethical considerations pharmacists must face, pharmaceutical care, the role of pharmacist as provider of evidence-based medical information, the US health care system (history, overview, stakeholders, providers, public health policies and the Food and Drug Administration), health care financing (Medicare, Medicaid, private insurance and managed care) and an introduction to pharmacy practice (community pharmacy and hospital pharmacy) clerkships (IPPE). Student pharmacists will also be required to participate in Medicare Part D Outreach programs.

PHRM 5111 Foundations of Pharmacy Practice and Self-Care Therapeutics I (4.0 credits)

The Foundations of Clinical Pharmacy Practice (PHRM 5111) is designed to introduce the student pharmacist to the knowledge, skills and attitudes necessary for successful completion of the PharmD curriculum, and to begin to develop foundation skills for patient-centered practice. General topics include contemporary pharmacy practice issues and the role of the pharmacist as a health care provider, written and verbal communication skills, ethics, law, professionalism, pharmaceutical care, patient counseling skills, selected skills development, self-care topics and the role of the pharmacist in self-care therapeutics, the proper selection and use of nonprescription medications and dietary supplements, patient assessment skills utilizing QuEST/SCHOLAR-MAC method, nonprescription, and dietary supplement product counseling.

PHRM 5112 Foundations of Pharmacy Practice and Self-Care Therapeutics II (4.0 credits)

This course reinforces the knowledge, skills and attitudes introduced in PHRM 5111. Written and verbal communication skills and team collaboration skills are further developed using various active learning exercises and team assignments such as patient cases, simulated encounters and EBP-based activities. General topics include the factors that lead patients to self-diagnose and self-treat their medical conditions, the role of the pharmacist in self-care therapeutics, the proper selection and use of nonprescription medications and dietary supplements, patient assessment skills utilizing QuEST/SCHOLAR-MAC, nonprescription and dietary supplement product counseling and contemporary pharmacy practice issues, laws and regulations.

PHRM 5113 Research Methods and Biostatistics (1.0 credit)

This block focuses on an introduction to research methodology and biostatistics. Student pharmacists will use these tools in this block to begin to review and evaluate peer-reviewed clinical studies. They will continue to use these tools in subsequent blocks to evaluate clinical studies pertaining to specific therapeutic topics.

PHRM 5114 Pharmacy Calculations (1.0 credit)

Pharmaceutical Calculations is an essential skill for all practicing pharmacists. Therefore, it is taught in PHRM 5114 but tested for retention throughout the curriculum in the P2 and P3 years. This course will be self-paced using on-line lectures and on-line assessments in addition to class meetings for a midterm and final exam. The lecture series will consist of problems dealing with aliquots, concentration, dosing patients, alligation, dilution of solutions, isotonicity, IV rates of flow, milliequivalents and milliosmoles, among other basic pharmacy calculation concepts. The objectives of this course are to apply the fundamentals of calculations and measurement to mathematical problems associated with pharmacy, to accurately use formulas, approximate equivalents, and nomograms to calculate doses, to memorize specific nomenclature (metric, apothecary and avoirdupois systems, Latin abbreviations) needed to interpret a prescription order, to accurately utilize dimensional analysis, ratio-proportion, and other methods of measurement to convert between units.

PHRM 5221 Pharmacological Basis of Therapeutics I (3.5 credits)

PHRM 5221 begins a series of four courses (PHRM 5221-5224) that integrate pharmacology, pathophysiology, medicinal chemistry and toxicology. Taken in their entirety they are referred to as the Pharmacological Basis of Therapeutics (PBT) block. These courses build on the principles acquired in biochemistry, anatomy, microbiology and physiology. The objective of these courses is to present the principles of drug-receptor selectivity, mechanisms of action of drugs and the rationale for their therapeutic use. The series of courses focus on pharmacodynamics (how the drug affects the body's functions) and pharmacokinetics (how the body handles the drug) and provides an integrated, scientific basis for understanding desired effects (therapeutic uses) and undesired side effects (adverse effects or drug-induced toxicity). The series focuses on the human system and provides the organizational knowledge and background relevant to the pharmacy practice sequence of courses presented in the second and third years. Principles addressing cellular, tissue and organ physiology provide a conceptual framework to introduce pharmacology by emphasizing commonalities of drug mechanism with drug classification. Prototype drugs in each pharmacological class are provided for comparing and contrasting with other agents in the same class and/or for other drugs used therapeutically but with different mechanisms of action. Fundamental principles are emphasized with the intent of providing their relevance for prevention and treatment of disease using therapeutic agents, most of which can be considered as modification of intrinsic, biological compounds.

PHRM 5221 begins with an introduction to pharmacology, including drug-receptor interactions, pharmacokinetics and pharmacodynamics. Parasympathetic and sympathetic agents that affect the autonomic nervous system will also be covered, as well as drugs used in the treatment of asthma.

PHRM 5222 Pharmacological Basis of Therapeutics II (3.0 credits)

PHRM 5222 is part of the series of courses (PHRM 5221, 5222, 5223 and 5224) that integrates pharmacology, pathophysiology and medicinal chemistry building on the principles acquired in biochemistry, anatomy and physiology. As described under Block Description of PHRM 5221, the objective of these courses is to present the principles of drug-receptor selectivity, mechanisms of action of drugs and the rationale for their therapeutic use. The series of courses focus on Pharmacodynamics (how the drug affects the body's functions) and Pharmacokinetics (how the body handles the drug) and provides an integrated, scientific basis for understanding desired effects (therapeutic uses) and undesired side effects (adverse effects or drug-induced toxicity). The series focuses on the human system and provides the organizational knowledge and background relevant to the pharmacy practice sequence of courses presented in the second and third years. Principles addressing cellular, tissue and organ physiology provide a conceptual framework to introduce pharmacology by emphasizing commonalities of drug mechanism with drug classification. Prototype drugs in each pharmacological class are provided for comparing and contrasting with other agents in the same class and/or for other drugs used therapeutically but with different mechanisms of action. Fundamental principles are emphasized with the intent of providing their relevance for prevention and treatment of disease using therapeutic agents, most of which can be considered as modifications of intrinsic, biological compounds.

PHRM 5222 introduces agents used to treat disorders of the cardiovascular (CV) system as well as diabetes. Specific CV topics include angina, arrhythmias, blood coagulation, heart failure, hyperlipidemia and hypertension. Taken together, the combination of obesity, diabetes, hyperlipidemias and hypertension, is termed "metabolic syndrome" and it is currently a major health concern with an increasing prevalence in the United States. An overview of the pathophysiology of each system will be presented followed by the pharmacology and medicinal chemistry of the agents used to treat these diseases/disorders. Prototype drugs in each class will be covered to further understanding of the subject.

PHRM 5223 Pharmacological Basis of Therapeutics III (3.0 credits)

PHRM 5223 focuses mainly on the central nervous system. Principles addressing basic anatomy, cellular and tissue physiology provide a conceptual framework to introduce pharmacology by emphasizing commonalities of drug mechanism with drug classification. Fundamental principles are emphasized, and principles are the focus in discussing the prevention and treatment of diseases using therapeutic agents. Clinically relevant conditions will include a series of neurological and psychiatric disorders and their relevant pharmacotherapies. Pain and pain management is introduced. This class also introduces endocrine hormones and their signaling mechanisms and how defects in these pathways are treated with pharmacotherapy. The concept of hormone replacement therapy will be introduced. Fundamental information will be introduced in lectures, reinforced during team assignment and assessed during quizzes and exams.

PHRM 5224 Pharmacological Basis of Therapeutics IV (3.5 credits)

PHRM 5224 introduces agents used to treat cancer as well as viral, bacterial, fungal and parasitic diseases. This subject is then extended into the pharmacology and medicinal chemistry of these agents, including the designation of prototype drugs that are used to treat different pathological conditions. The course begins with an introduction to nutrition. Nutritional guidelines, the relationship between diet and disease, commonly encountered nutritional diseases are introduced, as are vitamins, minerals and nutritional supplements. Students will be required to develop a food journal and use this as a basis for comparing their diet and exercise patterns with the guidelines proposed by the American Heart Association. This course also includes an introduction of agents used in the treatment of diseases of the gastrointestinal (GI) system. A review of the pertinent anatomy and physiology of this system is presented, which is then extended into the pharmacology of prototype drugs that are used to treat pathological conditions affecting this organ system. Then follow an introduction into toxicology with an emphasis on commonly encountered toxicities and their antidotes and a section on cancer and cancer treatment. The block concludes with infectious diseases and therapies to treat them (i.e. antiviral, antibacterial, antifungal and antiparasitic agents).

PHRM 5301 Pharmaceutics/Biopharmaceutics (3.5 credits)

This block introduces the student pharmacist to physicochemical principles and their applications in order to develop an understanding of the formulation, manufacturing, compounding, and proper use of solid dosage forms (tablets and capsules), liquid dosage forms (homogeneous and disperse systems), topicals, suppositories, aerosols, parenterals, radiopharmaceuticals, novel drug delivery systems, and veterinary products. The course includes a laboratory component in which student pharmacists are required to compound various dosage forms and perform analytical studies related to them.

PHRM 5302 Pharmacogenomics and Pharmaceutics (3.0 credits)

The goal of this block is to prepare future pharmacists to incorporate new technological and scientific developments in genetics/genomics into clinical practice. The course covers basic concepts of pharmacogenomics and molecular biology and how these relate to the development and implementation of pharmacogenomics tests. It explains how genetic variants may influence the pharmacokinetics and pharmacodynamics of medications. In addition, the course discusses important issues in pharmaceutical technology, including the design, formulation, manufacture and delivery of peptide, protein, monoclonal antibodies and oligonucleotide drugs. The course includes a laboratory component in which student pharmacists are required to compound various dosage forms and perform analytical studies related to them.

PHRM 5401 Immunology (3.5 credits)

This course introduces student pharmacists to the basic concepts of immunology. Topics include regulatory interactions between different components of the immune system and the deleterious effects of aberrant immune processes. Team assignments are an important component in this course and allow student pharmacists to integrate the knowledge gained during didactic lectures to a pharmacy-related application. The objective of the course is to provide a clear understanding of disease state immunopathology, immunopharmacology and immunotherapeutics.

PHRM 5501 Pharmacokinetics (3.5 credits)

PHRM 5501 introduces student pharmacists to the principles and basic concepts of pharmacokinetics, including compartmental modeling, distribution of drugs, volume of distribution, half-life and clearance. Information will also include the relevance of pharmacokinetics in drug action and toxicity. Clinical examples and case studies are used to emphasize these principles. Student pharmacists will be challenged to apply pharmacokinetic principles in clinical scenarios. The course will demonstrate the use of pharmacokinetic principles and essential equations in predicting plasma drug concentrations, changes in plasma drug concentrations, and modification of doses based on changing patient parameters. Pharmacokinetic changes will be examined in specific populations such as hepatic disease, renal disease, cardiovascular disease, obesity, pediatrics and geriatrics. Drug interactions and therapeutic drug monitoring is introduced.

PHRM 5601 Overview of Clinical Practice (4.0 credits)

PHRM 5601 is intended for International Post-Baccalaureate Doctor of Pharmacy student pharmacists (IPBP student pharmacists admitted with advanced standing in the PharmD program) whose educational pharmacy experience has been outside of the US. The introductory course provides important information on topics such as the drug distribution system in the US, drug information, literature evaluation, biostatistics, the structure of the US health care system, and health care issues in the USA. The purpose of building the knowledge base of the IPBP student pharmacists is to allow them to be at par with their peers in the entry-level program. Additionally, introduction to patient counseling skills, the use of the objective, structured clinical examination (OSCE) in evaluating a student pharmacist's clinical knowledge and skills, immunization certification, and self-study on medical terminology are also offered. The intent is to further strengthen IPBP student pharmacists' foundation such that their knowledge, skills and attitudes are in concert with the entry-level PharmD program in terms of the overall provision of pharmaceutical care. Prerequisite: Admission to the IPBP program. Required of all IPBP student pharmacists.

PHRM 5998 Introductory Pharmacy Practice Experience 1A (IPPE-1A) (2.0 credits)

The Fall Term Introductory Pharmacy Practice Experience I (IPPE-1A) introduces student pharmacists to pharmacy practice in a community setting. Through the IPPE-1A, student pharmacists are expected to master foundational competencies in three domains: Communication, Professionalism and the Practice of Pharmacy. These competencies address the basic skills that prepare the student pharmacist for the Advanced Pharmacy Practice Experiences (APPEs) offered through the PharmD curriculum. Student pharmacists will familiarize themselves with the practice of pharmacy in the following areas: laws and regulations pertaining to the licensing and operation of a pharmacy; the licensing and functions of a pharmacist, a pharmacy intern, a pharmacy technician and a pharmacy clerk; Federal and State legend laws; Federal and State narcotic laws; receiving and interpreting prescriptions; processing third party prescriptions; preparing a prescription order; dispensing a prescription order. In addition, student pharmacists will be practicing patient counseling on non-prescription medications; practicing communication skills with patients and other health care providers; observing management principles and financial reimbursement processes; and maintaining a portfolio that reports, comments and reflects on these essential competencies. Requisites: Concurrent enrollment in (or prior successful completion of) PHRM 5111.

PHRM 5999 Introductory Pharmacy Practice Experience 1B (IPPE-1B) (2.0 credits)

Continuation of PHRM 5998 in the Spring Term. In addition, student pharmacists are required to satisfactorily complete and submit their Professional Development Activities portfolio and satisfactorily pass the Top 200 Drug Quiz. Prerequisites are prior enrollment in PHRM 5998 and PHRM 5111. Requisites: Concurrent enrollment in (or prior successful completion of) PHRM 5112.

PHRM 6201 Pharmacy Practice I (4.0 credits)

PHRM 6201 uses a clinical, case-based approach that enables the student pharmacist to develop the fundamental skills of evidence-based clinical practice through teaching how to ask answerable clinical questions, how to conduct effective searches for the best evidence, how to critically appraise the evidence for its validity and importance, and how to integrate patient values and circumstances to formulate an evidence-based decision.

PHRM 6202 Pharmacy Practice II (4.0 credits)

PHRM 6202 is designed to introduce the student pharmacist to the management (evaluation, treatment, monitoring, and follow-up) of patients with common kidney and fluids disorders, and common gastrointestinal ailments, i.e., nausea, vomiting, diarrhea and constipation, and anemias. In addition, the block introduces clinical approaches necessary to manage special populations, i.e., pediatrics and geriatrics. Student pharmacists integrate knowledge, attitudes and skills in a variety of ways to accomplish the block outcomes. This block contains anatomy, biochemistry, physiology, pharmacology, pharmacokinetics, pharmacotherapy and clinical evidence as they relate to nephrology and gastrointestinal diseases. Accordingly, the overall goal of this block is to enable student pharmacists to integrate their knowledge of these disciplines in the context of formulating an individualized pharmacotherapeutic plan for a given patient.

PHRM 6203 Pharmacy Practice III (4.0 credits)

The goal of PHRM 6203 is to equip student pharmacists with essential knowledge, skills, and attitudes required for providing pharmaceutical care to patients with diabetes, hypertension or dyslipidemia as an entry-level practitioner. This block will build on the foundations, such as anatomy, biochemistry, physiology, pharmacology, and pharmacokinetics, as well as the pharmacotherapeutics of renal disease to introduce the management of diabetes, hypertension and dyslipidemia. Throughout the block, there will be emphasis on utilizing up to date evidence-based clinical data to make patient specific therapeutic decisions for patients. The management of diabetes, hypertension and dyslipidemia is continuously evolving, and the student pharmacists will obtain skills to stay current with the rapidly changing information.

PHRM 6204 Pharmacy Practice IV (4.0 credits)

The emphasis of PHRM 6204 is to enable student pharmacists to provide pharmaceutical care to patients with cardiovascular disorders as an entry-level practitioner. This block builds on the foundations, such as anatomy, biochemistry, physiology, pharmacology, pharmacokinetics, and pharmacogenomics as well as the pharmacotherapeutics of the basic metabolic syndrome (e.g., hypertension, diabetes, hyperlipidemia) to introduce the management of advanced cardiovascular disorders. Throughout the block, there will be emphasis on utilizing up to date evidence-based clinical data to make patient specific therapeutic decisions for patients with cardiovascular disorders. The management of cardiovascular disorders is continuously evolving. As such, the student pharmacists will also obtain skills to stay current with the rapidly changing cardiovascular therapeutics.

PHRM 6205 Pharmacy Practice V (3.5 credits)

Learning to integrate and apply knowledge, skills and attitudes to complex patients with multiple disease states, and drug-related problems are essential to successful practice as a pharmacist. This course integrates the information from PHRM 6201-6204. The student pharmacists are required to apply their knowledge and skills to complex, multi-disease patient cases, using interactive methods.

PHRM 6206 Practice Pharmacy VI (4.0 credits)

PHRM 6206 focuses on providing the student pharmacist with an understanding of the gastrointestinal and hepatobiliary systems. Specific emphasis will be placed on the pharmacologic treatment of various gastrointestinal disorders (i.e., peptic ulcer disease, gastroesophageal reflux disease, inflammatory bowel disease, irritable bowel syndrome, alcoholic liver disease and acute and chronic liver failure). The course concludes with a unit on nutritional assessment and enteral and parenteral nutrition.

PHRM 6207 Pharmacy Practice VII (4.0 credits)

At the end of this course, student pharmacists should feel confident about counseling patients on the proper use of inhalers and devices, birth control pills, and pain medications used to treat a variety of joint disorders. This block is designed for the second year pharmacy student pharmacist to learn how to solve patient-based pharmacotherapeutic problems in airway diseases, arthritic disorders and women's health issues. Asthma, COPD, and contraceptive technology, pathophysiology and treatment are introduced in this course, including national guidelines for diagnosis and treatment. Major concepts of prior block material are reinforced throughout the block.

PHRM 6208 Pharmacy Practice VIII (4.0 credits)

The purpose of this block is to enable student pharmacists to integrate the pathophysiology, medicinal chemistry, pharmacology and therapeutic knowledge in the management of specific psychiatric disease states (DSM-5). Student pharmacists will be prepared to give careful attention to accuracy of diagnosis, drug regimen selection, drug pharmacokinetics, appropriate dosing, and monitoring of efficacy and safety associated with pharmacotherapy. The content of the block includes psychiatric diseases including substance use disorders. In addition, the block discusses urinary incontinence, benign prostate hypertrophy and erectile dysfunction. Student pharmacists are provided the opportunity to practice clinical problem assessment and therapeutic drug monitoring in preparation for providing pharmaceutical care.

PHRM 6209 Pharmacy Practice IX (4.0 credits)

PHRM 6209 focuses on the epidemiology, pathophysiology, pharmacology, and pharmacotherapy relevant to diseases affecting the central nervous system, including epilepsy, headache, pain and pain management, Parkinson's disease, dementia, and stroke. Smoking cessation training and pharmaceutical law are also components of the block. The main goals are to provide student pharmacists with the fundamental knowledge, skills, and attitudes required to provide optimal pharmaceutical care to patients with various neurological disorders.

PHRM 6210 Pharmacy Practice X (3.5 credits)

Learning to integrate and apply knowledge, skills and attitudes to complex patient cases with multiple disease states and drug-related problems are essential to successful practice as a pharmacist. This course integrates the information from PHRM 6201-6209. Student pharmacists are required to apply their knowledge and skills to complex, multi-disease patient cases, using interactive methods.

PHRM 6300 Introductory Pharmacy Practice Experience 1 - IPBP (IPPE-1-IPBP) (4.0 credits)

This Introductory Pharmacy Practice Experience I (IPPE-1-IPBP) introduces IPBP student pharmacists to pharmacy practice in a community setting. Through the IPPE-1-IPBP, IPBP student pharmacists are expected to master foundational competencies in three domains: Communication, Professionalism and the Practice of Pharmacy. These competencies address the basic skills that prepare the IPBP student pharmacist for the Advanced Pharmacy Practice Experiences (APPE's) offered through the pharmacy curriculum. IPBP student pharmacists will familiarize themselves with the practice of pharmacy in the following areas: laws and regulations pertaining to the licensing and operation of a pharmacy; the licensing and functions of a pharmacist, a pharmacy intern, a pharmacy technician and a pharmacy clerk; Federal and State legend laws; Federal and State narcotic laws; receiving and interpreting prescriptions; processing third party prescriptions; preparing a prescription order; dispensing a prescription order. In addition, student pharmacists will be practicing patient counseling on non-prescription medications; practicing communication skills with patients and other health care providers; observing management principles and financial reimbursement processes; and maintaining a portfolio that reports, comments, and reflects on these essential competencies. In addition, student pharmacists are required to satisfactorily pass the Top 200 Drug Quiz. Prerequisite: successful completion of PHRM 5601.

PHRM 6301 Practice Pharmacy XI (4.0 credits)

PHRM 6301 provides an integrated approach to microbiology, antimicrobial pharmacology and infectious disease syndromes. The initial part of the block consists of identification, laboratory diagnosis, epidemiology and modes of spread of the medically important pathogens. Pharmacology of the major classes of antimicrobial agents will be discussed. The latter part of the block will focus on the microbiology, epidemiology, pathogenesis, pathophysiology, clinical features, preventive and infection control measures associated with major infectious disease syndromes due to common bacteria.

PHRM 6302 Pharmacy Practice XII (4.0 credits)

PHRM 6302 is an extension of PHRM 6301 with a focus on special patient populations and opportunistic infections, including fungal and viral infections. Treatment and counseling of patients with HIV/AIDS are presented. The pharmacology of antiviral and antifungal agents and the application in treating infections are discussed. A portion of the block focuses on the basic pharmacology of immunotherapeutic agents in organ transplantation, travel medicine and pharmacokinetic applications of vancomycin and aminoglycosides.

PHRM 6303 Pharmacy Practice XIII (4.0 credits)

Pharm 6303 is designed to introduce student pharmacists to several common malignancies and complications of both cancer and cancer therapy, which will form a foundation that student pharmacists can utilize to understand current and evolving strategies in cancer therapy. Throughout the block, student pharmacists will practice critical thinking and clinical decision-making skills using an interactive case study approach. The contemporary pharmacist's role in hematology and oncology, however, is not limited to the treatment of patients with cancer. As such, student pharmacists will have the opportunity to explore a number of diverse issues during the block, such as death and dying, cancer prevention, the treatment of non-malignant hematologic disorders, and the pharmacist's role in medication error prevention. At the conclusion of the block, student pharmacists will gain a better understanding not only of cancer therapeutics, but also the potential scope of the pharmacist's practice.

PHRM 6304 Pharmacy Practice XIV (4.0 credits)

PHRM 6304 provides student pharmacists an overview of pharmacy practice management in prominent pharmacy settings (community, ambulatory care, hospital and managed care). Student pharmacists are familiarized with the conceptual underpinnings and operations of pharmacy practice management, such as marketing, financial analysis, human resource management, and operations management (purchasing and inventory control). Disease State Management and Medication Therapy Management (DSM/MTM) are emphasized as important components of community/ambulatory care pharmacy practice management. In the hospital setting, the importance of formulary decisions, medication safety, drug information, utilization review, and clinical therapy guidelines and protocols are stressed. Material from this block and the next block are enmeshed for continuity and integration. The course includes a team project and poster presentation on developing a disease management clinic in a community pharmacy setting. The block will also include the first part of the MTM certificate course.

PHRM 6305 Pharmacy Practice XV (3.5 credits)

PHRM 6305 emphasizes the field of Health Outcomes and its applications to pharmacy practice. The ECHO model is used as a framework of measuring program, procedure or product effectiveness. The block covers an introduction to pharmacoeconomics and its techniques (CMA, CBA, CEA, CUA), basic review of the methodology employed in pharmacoeconomic research, a basic review of modeling techniques such as decision models, and application of pharmacoeconomics in formulary and guideline development in the current environment within private (managed care) and public health care policy. Further, various patient-reported outcomes (PROs) such as quality of life, patient satisfaction and adherence are introduced that provide a measure of patient preference in treatment plans and program effectiveness. Evidence based medicine (EBM), biostatistical analyses, and research methods are reviewed as necessary tools to evaluate the clinical and pharmacoeconomic literature as well as to apply these skills in developing monographs for recently approved drugs, which is a course assignment.

PHRM 6306 Pharmacy Practice XVI (4.0 credits)

This block is designed to prepare the student pharmacist to optimally perform and to successfully complete the APPE rotations. Student pharmacists integrate knowledge, attitudes and skills in a variety of ways to accomplish the block outcomes. The block starts with a Comprehensive Knowledge Assessment to reinforce the practice topics covered in the first 2.5 years of the curriculum. Student pharmacists will spend time developing and practicing thought processes associated with clinical case discussions by interacting with clinical practice faculty in formats that simulate APPE practice sites. The overall goals of this block is to enable student pharmacists to integrate their knowledge of these disciplines in the content of formulating an individualized pharmacotherapeutic plan for a given patient. Student pharmacists will hone their documentation skills using short-form, clinically relevant chart note formats. The third installment of pharmacy law is provided so that student pharmacists can practice legally and within societal expectations for a professional pharmacist. Other activities include an OSCE exercise, calculations exam and a team journal club presentation. Student pharmacists must pass an integrative oral examination and the calculations exam administered in this block before they will be allowed to proceed to the APPEs.

PHRM 6999 Introductory Practice Experience 2 (IPPE-2) (4.0 credits)

Introductory Pharmacy Practice Experience 2 (IPPE-2) introduces student pharmacists to pharmacy practice in an institutional setting. Student pharmacists are expected to master foundational competencies in three domains: Communication, Professionalism and the Practice of Pharmacy. These competencies address the basic skills that prepare the student pharmacist for the Advanced Pharmacy Practice Experiences (APPE's). As such, they represent an intermediate point in the professional development of a pharmacist. The student pharmacist will be expected to behave in a professional and ethical manner; articulate the pharmacist's role as a member of the health care team; communicate accurate and appropriate medical and drug information to a pharmacist, preceptor or other health care professional in a clear and concise manner; and demonstrate adherence to all State and Federal laws and regulations (including those of The Joint Commission and the United States Pharmacopeia) as a student pharmacist in the practice setting. At the completion of IPPE-2, through observation, practice, and self-learning, student pharmacists will be able to demonstrate an understanding of different methods of drug distribution and dispensing within an institutional setting, calculations commonly encountered in institutional settings, and the pharmacist's role in medication management (formulary management, cost containment, preventing adverse drug reactions and medication errors, managing drug therapies by protocol).

PHRM 7110 Advanced Community Practice (CP) (8.0 credits, CR/NCR)

Supervised advanced patient care experience in a community pharmacy setting under the supervision of a pharmacist preceptor.

PHRM 7120 Health-Systems Practice (HS) (8.0 credits, CR/NCR)

Supervised advanced patient care experience in an inpatient pharmacy setting under the supervision of a pharmacist preceptor.

PHRM 7210 Ambulatory Care (AC) (8.0 credits, CR/NCR)

Supervised clinical pharmacy experience emphasizing the development of pharmaceutical care skills in an outpatient setting.

PHRM 7220 General Medicine (GM) (8.0 credits, CR/NCR)

Supervised clinical pharmacy experience emphasizing the development of pharmaceutical care skills in a hospital or other acute-care institutional setting such as a long-term care facility.

PHRM 7330 Elective Pharmacy Practice Experience I (8.0 credits, CR/NCR)

Supervised education in clinical, administrative, or research settings that provide additional experience in specialty areas such as pediatrics, geriatrics, infectious disease, drug information, oncology, pharmaceutical research, pharmacy administration, etc.

PHRM 7340 Elective Pharmacy Practice Experience II (8.0 credits, CR/NCR)

Supervised education in clinical, administrative, or research settings that provide additional experience in specialty areas such as pediatrics, geriatrics, infectious disease, drug information, oncology, pharmaceutical research, pharmacy administration, etc. Prerequisite: PHRM 7330.

PHRM 8200 Elective Coursework (4.0 credits, CR/NCR)

Advanced level coursework in an area of special interest beyond that presented as part of the previous didactic coursework of the Doctor of Pharmacy Curriculum. Repeatable to a maximum of 16 credits.

PHRM 8400 Advanced Electives (20.0 credits, CR/NCR)

Advanced clinical educational experiences in an area of special interest beyond that provided as part of the previous clinical coursework of the Doctor of Pharmacy curriculum. Student pharmacists choose from one of three tracks to help them focus on their area(s) of interest.

The Health-Systems (clinical/research) Practitioner Track is intended for student pharmacists interested in furthering their clinical training in settings such as hospital, ambulatory care, home infusion, skilled nursing facilities, and other non-community practice sites. This includes a dedicated project and poster presentation of their work, which may include research, medication use evaluations, staff education guidelines, cost-effectiveness analyses, implementation of pre-printed order sets, etc. Student pharmacists should expect to be on campus for progress reports and the PIC Week.

The Community Pharmacy Track is intended for student pharmacists who plan to be clinical staff pharmacists at chains or independent pharmacies. The experience will focus on the provision of direct patient care services (i.e. drug therapy management, immunization, MTM collaborative practice, basic physical assessment of patients) that they will be qualified to provide as a practicing clinical pharmacist. This option includes a formal poster presentation on a project assigned/accepted by their preceptor. This

experience may also include off-site conferences and/or case studies as well as completion of the Community Pharmacy and Practice Self-Assessment from the California State Board of Pharmacy.

The Community Pharmacy Entrepreneur Independent Ownership Track is intended for student pharmacists who intend to be independent community pharmacists with the goal of owning their own pharmacy. The course includes the development of a business plan and a formal presentation on the development of the business plan. This experience includes weekly on-campus meetings/lectures, and may include off-site conferences and/or case studies as well as completion of the Community Pharmacy and Practice Self-Assessment from the California State Board of Pharmacy. Student pharmacists will also gain experience in the provision of direct patient care services as outlined in the Community Pharmacy Track.

PHRM 8800 Other Electives (20.0 credits, CR/NCR)

Individualized, supervised educational experiences in an area of special interest related to pharmacy practice and/or pharmaceutical sciences beyond that provided by previous coursework in the Doctor of Pharmacy curriculum and not eligible for credit within PHRM 8200 or 8400.

PHRM ELC1 Introduction to Clinical Research (1.0 credit, Letter Grade, Fall)

Clinical research is defined as the study of a drug, biologic, or device in human subjects with the intent to discover potential beneficial effects and/or determine its safety and efficacy. This elective introduces students to clinical trials and basic clinical research principles for those interested in pursuing residency or a field of clinical research (fellowship, industry, FDA career). Throughout the elective course we will discuss principles of clinical research, experimental design, managing and monitoring clinical trials, data management and analysis, and regulatory affairs with drugs, biologics and devices.

PHRM ELC2 Pharmacist's Role to Improve Medication Adherence (1.0 credit, CR/NCR, Spring)

The purpose of this course is to provide in-depth knowledge and skills about medication adherence including assessing medication adherence, understanding barriers to adherence, improving adherence through the use of aids, and empowering patients to improve adherence. This class will include didactic teaching related to the theory behind medication adherence behavior, and outcomes research in this field. In addition, active classroom discussions based on simulation activities will be included. The activities may include filling out the medication non-adherence risk assessment tool with his/her chosen patients, filling out multi-dose pillbox and taking their medications as directed based on "real-life scenarios", calculating medication adherence, and identifying barriers to medication adherence through the survey. Open to year 1 PharmD students only. Course is only offered in the spring term. See registration notification for capacity, course dates/times.

PHRM ELC3 Diabetes Advanced Elective – Online DM Educate (2.0 credits, Letter Grade, Fall/Spring)

This is a self-paced online series of videos and post-quizzes after the videos that expand your knowledge in diabetes care. There are multiple topics that each take varying amount of time, but overall accounts to about 2 hours/week (30hrs overall) which can be done whenever throughout the course. Class time will be to discuss questions or concerns from the video and to apply the video modules to a case.

This comprehensive diabetes series includes drug therapy, but also history of diabetes, exercise and nutrition, how to manage inpatient diabetes, gestational diabetes, children with diabetes, physiological issues, and motivation interviewing. The course was created by the University of Pittsburgh (<https://www.dmecourse.pharmacy.pitt.edu/>), but the modules were created by Certified Diabetes Educators (CDEs) from all over the country. Open to year 2 and year 3 PharmD students. See registration notification for capacity, course dates/times.

PHRM ELC4 Independent Research (1.0 Credit, CR/NCR, Fall/Spring)

This block introduces the student pharmacists to independent research experiences under the supervision of a faculty member. The research experience may vary from bench research (pharmaceutical sciences) to clinical translational research (pharmacy practice). Student pharmacists will be expected to participate in research activities at the rate of 3 hours per week per credit. 30 hours of research must be completed by the end of the semester to earn a grade for the elective course. Schedules for research will be determined by the student pharmacist in consultation with the faculty preceptor. Student pharmacists will only be allowed a maximum of 2 professional elective credits over two semesters (1 credit each). Any additional research elective course while eligible for course credit, will not be counted towards the overall elective degree requirement.

Please note that all faculty members may not be able to offer the research elective course. Thus, the student pharmacist must email the faculty member directly to enquire about any openings for the desired semester (see faculty research and specialty profiles <http://www.westernu.edu/pharmacy/>). If a position is available, the student pharmacist must choose the “independent research” elective course during semester course registration. Open to year 1, year 2 and year 3 PharmD students.

PHRM ELC5 Vaccines: Science and Society (1.0 credit, CR/NCR, Fall/Spring)

The overall goal for this course is to allow for students to further appreciate the scientific and clinical basis of vaccination as well as the key aspects of society opinion that have recently been challenging vaccine usage. Overview of important vaccines and the scientific basis behind the efficacy and safety of these vaccines are introduced along with aspects of individual vaccines that are often discussed in society with regards to safety issues. The class will provide didactic instruction and reading blended with discussions on key topics. Open to year 2 and year 3 PharmD students in the fall and open to year 1 PharmD students only in the spring. Successful completion of PHRM 5401 and PHRM 5111 is a prerequisite. See registration notification for capacity, course dates/times.

PHRM ELC6A Seminar in Professional Development (1.0 credit, CR/NCR, Fall)

This seminar elective provides presentations related to careers, leadership, management, legal and regulatory issues and other topics related to professional and personal development. This seminar course will give 1 unit of credit for attending a minimum number of these presentations and writing a minimum number of reflections. Open to year 1 PharmD students and year 2 PharmD students that have not taken the course previously. Course is offered in both fall and spring terms. See registration notification for capacity, course dates/times.

PHRM ELC6B Seminar in Professional Development (1.0 credit, CR/NCR, Spring)

This seminar elective provides presentations related to careers, leadership, management, legal and regulatory issues and other topics related to professional and personal development. This seminar course will give 1 unit of credit for attending a minimum number of these presentations and writing a minimum number of reflections. Open to year 1 PharmD students and year 2 PharmD students that have not taken the course previously. Course is offered in both fall and spring terms. See registration notification for capacity, course dates/times.

PHRM ELC7 Leadership in Pharmacy (1.0 credit, CR/NCR, Spring)

This is an exploratory course for students to find the leader within. There are on-line modules for reading, and self-assessments and projects for defining leadership. Discussion groups and guest speakers discuss leadership styles and roles in various settings. A second domain involves interaction with a leadership mentor. Lastly, students use reflections to define leadership and how they fit into leadership. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC8 Lifestyle Management & Wellness Elective (2.0 credits, Letter Grade, Fall)

This course will serve to further develop the abilities of student pharmacists to assist in designing a plan and guiding patients through lifestyle changes to prevent and improve common medical conditions, such as hyperlipidemia, diabetes and hypertension. Student pharmacists will create detailed plans for specific patients, including recipes, exercise, motivational techniques, and other non-pharmacologic recommendations. They will also examine societal perspectives on nutrition and discuss initiatives to make improvements. Many class meetings and discussions will be done virtually, through use of Zoom. Over the duration of the course, student pharmacists will also focus on personal wellness, through design and completion of an individualized project aimed at improving their own health. This course will expand upon the basic nutrition information taught in PHRM 5224 and complement material in PHRM 6203. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC9 Introduction to Decision Analyses in Formulary Management (1.0 credit, CR/NCR, Spring)

Formulary management is an integrated patient care process which enables physicians, pharmacists and other health care professionals to work together to promote clinically sound, cost-effective medication therapy and positive therapeutic outcomes. Effective use of health care resources can minimize overall medical costs, improve patient access to more affordable care and provide an improved quality of life. In this elective course, students will learn about common decision-analysis tools used in formulary decision-making. The focus will be on cost-effectiveness and budget impact analyses. This class will include didactic learning, directed reading assignments, and classroom discussions. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC10 The Chemistry of Cosmetics (1.0 credit, Letter Grade, Spring)

This course will discuss the components and chemistry of cosmetics, such as skin and hair care products, sunscreens, perfumes. Furthermore it will discuss product safety issues, legislation and product evaluation. This class involves directed reading assignments and discussions. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC11 OTC and Self-care for IPBP Students (1.0 Credit, CR/NCR, Fall)

This course provides an extended review of OTC and Self-care to supplement instruction in the IPBP program. Through this elective, faculty will go over key concepts in OTC/Self-care that will better prepare student pharmacists in the IPBP program for their career as students and practicing pharmacists. Open to year 2 IPBP PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC12 Immunotherapies (1.0 Credit, CR/NCR, Fall)

This course provides an overview of commonly used immunotherapies and discussion of the disease states they can target. Discussions on the pros and cons of the immunotherapies are presented. Additional presentations from clinical and industry perspective are presented to give an overview of the role of pharmacists in working with these therapies. Open to year 2 and year 3 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC13 Pharmacy Residency Elective Preparation (PREP) Course (1.0 credit, CR/NCR, Spring)

In this hands-on course, you will learn how to prepare for the pharmacy residency application process. We will guide you through researching residency programs, applying through PhORCAS, and preparing a *curriculum vitae* and letter of intent. You will also have opportunities to participate in clinical case questioning and mock interviews and with the course facilitators. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC14 Biostatistics for Pharmacists (1.0 Credit, Letter Grade, Fall)

This course will perform an overview of the conceptual principles and analysis of parametric and non-parametric statistics relevant to research in Pharmacy. Students will learn to identify critical factors in experimental design that impact data analysis. Determination of proper statistical test selection and data analysis will also be covered. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC15 Principles of Biomedical Ethics (1.0 Credit, Letter Grade, Spring)

This course consists of three topics within modern biomedical ethics. First, the course will survey the various moral philosophies that are used in society as well as the biomedical enterprise. Second, the course will utilize a small group format to discuss medical scenarios to tease apart ethical approaches and the conflict between various ethical theories. Lastly, the course will continue in the small group format to discuss research ethics and use real cases to examine the role that ethics and ethical theories play in laboratory science. Students are also expected to explore their own ethical philosophy and articulate this philosophy in line with the traditional philosophies that will be discussed in class. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC16 Introduction to the Pharmaceutical Industry (1.0 Credit, Letter Grade, Fall)

This elective is designed to introduce student pharmacists to the pharmaceutical industry and its numerous functions with an emphasis on building entry-level competencies and experiences for student pharmacists pursuing employment or post-graduate training in the industry. Student pharmacists will be introduced to the more common roles and divisions of industry practice seen throughout many pharmaceutical companies and the pharmacists' role in each, including but not limited to medical information, scientific communications/writing, regulatory affairs, medical affairs, and more. Through classroom sessions introducing each type of practice, student pharmacists will have a chance to build networking skills, identify roles of interest, and establish strong communications foundations required for many pharmacists in this type of practice. Student pharmacists will also have the chance to interact directly and through videoconferencing with guest faculty who are currently employed in the pharmaceutical industry and in the specialty for which they represent. Open to year 2 and year 3 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC17 Essential Oils: Ethnobotany, Pharmacology and Application (1.0 Credit, Letter Grade, Fall)

Essential oils are concentrated and lipophilic extracts of volatile aromatic molecules from botanical sources. Interest in scientific study of essential oils has expanded in recent years in parallel with their increased use as Complementary and Alternative Medicines (CAM) by the general public. This elective introduces folkloric and ethnobotanical perspectives of essential oils, pharmacologic properties of essential oils, recent advances in scientific knowledge, and the evidence base for contemporary use. The course will feature a combination of lecture, projects, presentations, and experiential study delivered in a hybridized online/in person format. Open to year 2 and year 3 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC18 Therapeutic Uses of Illicit Substances (1.0 Credit, Letter Grade, Spring)

A recurring dilemma in the use of drugs is differentiating medical utility from potential for abuse and ability to cause harm. In the United States there are a number of drugs regulated as schedule 1 illicit substances that have demonstrated therapeutic potential in the treatment of both psychiatric and medical illness. This elective will explore the pharmacology, evidence base, legal status, and treatment models of potential therapeutic uses of illicit substances. The course will feature a combination of lecture, projects, assigned reading, and presentations. It will be delivered primarily via online content, although some in person classes will be required when guest speakers are invited. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC19 Advanced Toxicology (1.0 Credit, CR/NCR, Spring)

Toxicology is the study of poisons. According to the alchemist Paracelsus, all substances are poisons and the dose differentiates a poison from a remedy. This course will focus on major toxic spills and human exposures that are of concern in today's society. Case-based problems will be used to apply principles of toxicology and illustrate the major adverse health impacts of environmental toxins and pharmaceuticals. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC20 Stress Management for Student Pharmacists: MMY Method (MINDFULNESS, MEDITATION AND YOGA) (1.0 Credit, CR/NCR, Fall/Spring)

This elective is designed as an introductory to intermediate level course for the student pharmacist to learn basic techniques of Yogic breathing (Pranayama), postures (asanas), mindfulness and meditation towards relaxation and stress reduction. The benefits of the course are intended to be both short and long term, dependent on individual levels of practice. Open to year 2 and year 3 PharmD students in the fall term and P1 students in the spring term. See registration notification for capacity, course dates/times.

PHRM ELC21 IPE 5100 Facilitation (1 Credit, CR/NCR, Spring)

This elective is designed to provide opportunity in teaching and build leadership skills. Student pharmacists will facilitate IPE 5100, an interprofessional case discussion course involving first year health professional students from all 9 health professional programs at WesternU. Student pharmacists will be expected to prepare, facilitate, and evaluate the participants. The opportunity will allow students pharmacists to self-reflect on personal skills and interests in academia and leadership roles. Student pharmacist enrolled in this course will be required to facilitate 2 of the 3 IPE 5100 case series. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC22 Pharmacist & Patient Centered Diabetes Care Certificate Training Program (APhA) (2 Credits, Letter Grade, Fall/Spring)

The Pharmacist and Patient-Centered Diabetes Care is an APhA Certificate Training Program that many employers are requiring this certification program in both community and ambulatory care settings to advance the profession of pharmacy. This is an intensive training program designed for student pharmacists to equip with the knowledge, skills, and confidence needed to provide effective, evidence-based diabetes care. Five self-study modules provide comprehensive instruction in current diabetes concepts and standards of care. The live seminar incorporates case studies and hands-on skills focused on the situations most likely to be encountered in community and ambulatory care practice settings. Students will refine their skills on evaluating and adjusting drug therapy regimens for patients with type 1 and type 2 diabetes, counseling patients about lifestyle interventions, analyzing and interpreting self-monitoring of blood glucose results, and assessing the overall health status of patients to identify needed monitoring and interventions. Open to year 2 and year 3 PharmD students only. See registration notification for capacity, course dates/times. This course has a \$130.00 certificate fee, to be paid directly to APhA by student.

PHRM ELC23 Formulary Management (2.0 Credits, CR/NCR, Fall)

Formulary management requires extensive and timely pharmaceutical knowledge as well as an understanding of the medical community practice standards that exist within the health care system. A Pharmacy and Therapeutics Committee (P&T Committee) is ultimately responsible for developing, managing, updating, and administering the formulary system that is utilized by managed health care systems. Pharmacists who serve on P&T Committees must know how to evaluate the best available scientific evidence, clinical and economic, weigh its use and its impact on patient population outcomes, be able to conduct cost/benefit analyses, and relate drug therapy choices to practice guidelines. Development of these necessary formulary management skills helps managed health care systems achieve the challenging goals of improving the quality of patient care while controlling scarce healthcare resources.

This course is intended to give students an opportunity to hone a variety of skills including critical analysis, presentation and research skills. It also allows students to view different styles and processes that can be used in effective formulary management. Students will learn to develop and manage a formulary system through evaluating literature, conducting comparative studies, and making real life decisions based on cost-benefit analysis. Open to year 1 and year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC24 Global Health Summer Rotation (2.0 Credits, CR/NCR, Summer)

This elective course aims to provide a global health experience to student pharmacists interested in learning about the pharmacy profession in countries outside of the USA. The course is offered during summer months of the P1 and P2 years and depends on availability of the international sites at the time of application. The total duration of the course will be 4 weeks of which 1 week accounts for travel back and forth from the international destination and also for report writing. The remaining 3 weeks will focus on spending time at the campus of our affiliate host institutions and visits to hospital pharmacies and pharmaceutical industries or as planned by the host institution. Current memorandums of understanding exist with institutions in China, Japan, Korea and Thailand. While there will be no tuition fee for participating in this elective course (provided it is within the credit limits as designated by the College), there will be costs pertaining to visa, travel, lodging and food which will be the responsibility of the student. Student pharmacists interested in this elective course can request estimated costs for the trip from the facilitator. A waiver form will need to be signed prior to travel. **Please note student pharmacists must enquire with the facilitator prior to registering for this elective.** Open to year 1 and year 2 PharmD students only. See registration notification for capacity, course dates/times.

PHRM ELC25 Advanced Clinical Research Design (1.0 Credit, CR/NCR, Spring)

This course aims to have the students learn various issues associated with clinical research and experimental designs. This elective helps students to learn the practical aspect of clinical trials and how to develop the study objectives, the research protocol, IRB preparation, study design issues, data analysis, and preparation of abstracts, and publish the findings. This course will help those interested in pursuing research career, i.e., fellowship, industry, or academia. Throughout the elective course we will discuss principles of the study objectives, clinical research/ experimental design, protocol development, managing and monitoring clinical trials, data management and analysis, and regulatory issues with drugs, and the student will have the opportunity to develop his/her own study protocol. Open to year 2 PharmD students only. See registration notification for capacity, course dates/times.

Honors and Awards

The following awards for PharmD students are presented annually on Honors Day in April (some awards subject to change).

- Albertsons/Sav-on Scholarship
- California Korean American Pharmacists Association Endowed Scholarship
- Cardinal Health Pharmacy Scholarship
- CVS Health Foundation Pharmacy School Grants Program Scholarship
- Dean's Merit Scholarship
- Drs. Sumit & Bhavesh Desai Scholarship Endowment
- Debbie Robinson Memorial Scholarship
- East-West Scholarship
- Good Neighbor Pharmacy/Institute for Community Pharmacy Scholarship
- Indian Pharmacists Association Endowed Scholarship
- National Association of Chain Drug Stores Foundation Pharmacy Partners Scholarship
- Ralphs Pharmacy Scholarship
- Rite Aid Scholarship
- Rosenberg Endowed Scholarship
- RX Prep Scholarship
- Dr. Sam Shimomura Scholarship Endowment
- Tribute to Caring Scholarship
- Dr. Fidel Valenzuela Scholarship Endowment
- Vietnamese Pharmacists Association (VPhA in the USA)
- Walgreens Diversity Scholarship
- Walgreens Diversity & Inclusion Excellence Scholarship
- Walmart Pharmacy Scholarship
- Who's Who Among Students in American Universities and Colleges Nominations

The following awards are presented annually to graduates at the Commencement Dinner Dance:

- APhA-ASP Outstanding Graduate Award
- Dean's Award

Academic Calendar

COP academic calendar is subject to change.

Fall 2018	
May 21, 2018	Fall Rotations Begin (PharmD Year 4, IPBP Year 3)
July 4, 2018	Independence Day Observed – No Classes*
July 9, 2018	Fall Classes Begin (IPBP Year 1)
July 16, 2018	Fall Classes Begin (IPBP Year 2)
August 6-10, 2018	Orientation/Welcome Week (PharmD Year 1)
August 11, 2018	Convocation/White Coat Ceremony (PharmD/IPBP Year 1)
August 13, 2018	Fall Classes Begin (PharmD Years 1-3)
September 3, 2018	Labor Day – No Classes*
October 8, 2018	Columbus Day – No Classes*
November 9, 2018	Fall Rotations End (PharmD Year 4, IPBP Year 3)
November 22, 2018	Thanksgiving Recess Begins @ 5:00 p.m.
November 26, 2018	Fall Classes Resume
December 21, 2018	Fall Classes End (PharmD Years 1-3, IPBP Years 1-2)
December 24, 2018	Winter Recess Begins
Spring 2019	
November 12, 2018	Spring Rotations Begin (PharmD Year 4, IPBP Year 3)
January 7, 2019	Spring Classes/Rotations Begin (PharmD Years 1-3, IPBP Years 1-2)
January 21, 2019	Martin Luther King Day – No Classes*
February 18, 2019	President’s Day – No Classes*
March 25, 2019	Spring Break Begins for PharmD Year 1
March 27, 2019	Spring Break Begins for PharmD Year 2
April 1, 2019	Spring Classes Resume for PharmD Year 1
April 3, 2019	Spring Classes Resume for PharmD Year 2
April 4, 2019	Honors Day
May 10, 2019	Spring Rotations End (PharmD Year 3-4, IPBP Year 2-3)
May 22-24, 2019	Commencement
May 24, 2019	Spring Classes End (PharmD Year 1)
May 27, 2019	Memorial Day – No Classes*
June 13, 2019	Spring Classes End (IPBP Year 1)
August 9, 2019	Spring Classes End (PharmD Year 2)

**Student pharmacists in clinical rotations observe their preceptor’s hours, which may include working on federal holidays.*