PHARMACY, DOCTOR OF (PHARM.D.)

The school offers the Doctor of Pharmacy degree as a professional degree program. Students must complete a minimum of 52 semester hours before admission. The Doctor of Pharmacy degree is awarded after four years of study.

Student learning outcomes

Graduates will demonstrate competencies in the following areas:

Scientific thinking: The graduate is able to seek, analyze, integrate and apply foundational knowledge of medications and pharmacy practice (biomedical; pharmaceutical; social, behavioral, and administrative; and clinical sciences; drug classes; and digital health).

Problem-solving process: The graduate is able to use problem solving and critical thinking skills, along with an innovative mindset, to address challenges and to promote positive change.

Communication: The graduate is able to actively engage, listen and communicate verbally, nonverbally and in writing, when educating or interacting with an individual, group or organization.

Cultural and structural humility: The graduate is able to mitigate health disparities by considering, recognizing and navigating cultural and structural factors to improve access and health outcomes.

Person-centered care: The graduate is able to provide whole person care and comprehensive medication management to individuals as the medication specialist using the Pharmacists' Patient Care Process.

Advocacy: The graduate is able to promote the best interests of patients and/or the pharmacy profession within healthcare settings and at the community, state or national level.

Medication-use process stewardship: The graduate is able to optimize patient health care outcomes using human, financial, technological and physical resources to improve the safety, efficacy and environmental impact of medication use systems.

Interprofessional collaboration: The graduate is able to actively engage and contribute as a healthcare team member by demonstrating core interprofessional competencies.

Population health and wellness: The graduate is able to assess factors that influence the health and wellness of a population and develop strategies to address those factors.

Leadership: The graduate is able to demonstrate the ability to influence and support the achievement of shared goals, regardless of one's role.

Self-awareness: The graduate is able to examine, reflect on, and address personal and professional attributes (e.g., knowledge, metacognition, skills, abilities, beliefs, biases, motivation, help-seeking strategies and emotional intelligence) that could enhance or limit growth, development and professional identity formation.

Professionalism: The graduate is able to exhibit professional attitudes, behaviors and values consistent with the VCU School of Pharmacy attributes of professionalism that embody a commitment to building and maintaining trust given to the profession by patients, other health care providers and society.

Licensing and reciprocity

Applicants for the North American Pharmacist Licensure Examination must present evidence that their first-professional degree was granted by a school of pharmacy recognized by the board. This School is among those recognized. Applicants must also present evidence of completion of 1,500 hours of practical experience. Completion of the school's Pharm.D. program satisfies this requirement. APPE rotations completed outside of the United States may not be counted toward the 1,500–hour requirement.

Those students who intend to be licensed in Virginia should contact the Virginia Board of Pharmacy, 9960 Mayland Dr., Suite 300, Richmond, VA 23233-1463.

Academic regulations

Matriculation in the School of Pharmacy implies a willingness on the part of students to comply with university rules and regulations and to conduct themselves in a manner befitting members of the profession the students seek to enter. The program of study and regulations regarding courses of study, student conduct, etc. are subject to modification without notice. All rules and regulations set forth in this bulletin, as well as other statements issued by administrative officers of the university, apply until further notice.

Probation

Students may be placed on probation by either the Admissions Committee or the Academic Performance Committee. Probation is a status indicating that the student's academic performance is deficient and is expected to be improved to a level considered to be satisfactory by the faculty. Students who fail to meet probationary stipulations may have their progress through school interrupted. They may be required to repeat a class, a year, a semester or to withdraw. Students on probation during the first three years of the professional program are neither allowed to hold an elected office in a student association nor be eligible for nomination as an officer in a student association. Students on probation are not permitted to represent the school in extracurricular activities (e.g., representation at a local, regional or national association meeting, or other professional event). All students on probation are encouraged to discontinue any outside employment during the academic year. Students on probation are not eligible to pledge a professional fraternity. Students are encouraged to avail themselves of special tutoring and counseling services for improving their academic performance. Expiration of probationary status occurs following the equivalent of an academic year (i.e., two consecutive semesters of successful academic performance during the first three professional years) and upon the successful completion of all advanced pharmacy practice experiential rotations in the fourth year.

Outside work

In general, the Faculty believes that students should give first priority to their school work. Students able to maintain academic standing are not restricted with respect to outside employment. Students in academic difficulty will be advised to cease or drastically curtail any outside employment.

Honor code

All students are governed by the honor code and regulations of the VCU Honor System. The VCU Honor System is based on the foundation

that Virginia Commonwealth University recognizes that honesty, truth and integrity are values central to its mission as an institution of higher education. In a community devoted to learning, a foundation of honor must exist if that community is to thrive with respect and harmony. Therefore, members of the academic community are required to conduct themselves in accordance with the highest standards of academic honesty and integrity. Additional information is available on the Student Conduct and Academic Integrity website (https://conduct.students.vcu.edu/).

Advising program

Students in the School of Pharmacy seek assistance with academic and personal problems through the school's Office of Admissions and Student Services. Students are provided with information about accessing resources within the school, university and professional community. Also, faculty members serve as mentors to students throughout the four year curriculum.

There is a faculty adviser to the Interfraternity Council as well as an adviser for each of the professional pharmacy fraternities. Each of the student chapters of professional pharmacy organizations within the school also has a designated faculty adviser.

Attendance regulations

The following regulations apply specifically to students enrolled in the Doctor of Pharmacy program in all of their required and elective courses offered by departments in the School of Pharmacy.

1. The faculty considers class attendance at lectures to be an important component in the successful acquisition of knowledge and skills required of the Doctor of Pharmacy candidate. Students are strongly encouraged to attend all classes and conferences. An individual faculty member may require attendance in his or her course and establish penalties for those who are absent without an excuse from the dean's office.

2. Attendance at laboratory and prelaboratory classes is mandatory. Students must complete all laboratory assignments before a passing grade can be assigned. An excused absence from the dean's office is required for missing a laboratory or prelaboratory class with the ability to make up the work with credit. Students without an approved absence are still required to make up the work but will not receive credit toward their course grade.

3. Students must take tests (e.g., quizzes, laboratory practicals, examinations) and complete all other assignments at the time designated by the course coordinator. Students must recognize that faculty may give unannounced tests at any time during a course, consistent with documentation in a course syllabus. Students who miss any test in any course without an excused absence from the dean's office will receive a grade of zero for the specific test.

4. Attendance during each assigned clerkship period is mandatory. If a student is unable to attend to required clerkship responsibilities because of illness or other exceptional circumstances, the preceptor must be notified immediately. It is the responsibility of the student to also notify the clerkship director concerning a plan to make up the absence, with the approval of the preceptor. Documentation of the absence and approval to make up the absent time will be maintained in the student's record.

5. Absences may be excused under certain conditions. Requests for excuses for unavoidable absences must be submitted to the dean's office electronically within 24 hours of returning to the School of Pharmacy. The student must complete the Absence Record form with an explanation for the absence. Further explanation, if necessary, may be provided to the associate dean for admissions and student services. It is a violation of the honor code to make false or misleading statements on the Absence Record form. In the event of an unexcused absence, the student is responsible for all work missed.

6. A guiding principle in determining whether or not an absence will be excused is that the absence is caused by circumstances beyond the student's control. The following are considered valid excuses for being absent from a class or clerkship.

    a. Illness, a medical emergency, a dental emergency. The school normally accepts the student's judgment that the condition was serious enough to justify the absence from class; however, the school reserves the right to require a medical opinion, particularly if the period of absence is prolonged or is repetitive. The school will require a written medical opinion when a student is absent from taking a scheduled test or final examination. If the absence is a result of a medical emergency, the student will be required to sign a written release for the school to obtain documentation from their physician describing the exact nature of the illness or emergency. This record will be submitted to the associate dean for admissions and student services as a confidential document. Some students may experience persistent or chronic health concerns that impact academic performance or attendance. Students are encouraged to meet with the director for student success or the associate dean of admissions and student services to develop a plan that prioritizes health and promotes student success. Information pertaining to a student's health is confidential within the Office for Admissions and Student Services. A student may choose to share their personal information pertaining to absences with faculty members and they are welcome to do so.

    b. Death of a relative or friend. Students will be excused from class to attend funerals. Absence beyond the day of the funeral will be excused for periods of mourning required by a student's religious or cultural tradition, or when a student is too grief-stricken to return immediately to class.

    c. Mandatory court appearance.

    d. Mandatory religious observances. Students who anticipate absences from class because of religious obligations should submit a list of their anticipated absences at the beginning of each semester to the dean's office.

    e. Failure of private, public or university transportation. Students are expected to take reasonable precautions to assure that the transportation method used is fully functional (e.g., maintaining personal automobile, avoiding the last possible return airline flight to Richmond). Proof of transportation failure will be required.

    f. Attendance at professional meetings. Students in good academic standing may receive an excused absence from class to attend a meeting of a professional pharmacy organization. The student must complete an Absence Record form in advance of attending a professional meeting. A policy statement containing eligibility criteria is distributed to all students.

    g. One personal day per semester. P1-P3 students are allocated one personal day per semester. There are instances where students would like to attend events that are significant for family and friends and that would require them to be away from classes. At the beginning of each semester, students can submit to the Office for Admissions and Student Services the request for one day to

attend a significant life event. Documentation must be submitted with the request and can include an invitation or announcement detailing the event which may be a wedding, graduation, military ceremony, anniversary celebration, retirement celebration, etc. The deadline for submissions will be consistent with the deadline for the intention to observe religious holidays, and submissions that occur following the deadline will not be accepted. Absences for weddings, graduation ceremonies of relatives or friends, family vacations, anniversaries, birthdays and other personal events are not considered as excused absences. However, a student should make their own personal decision about attending such events after considering the consequences of an unexcused absence. Further, students must make up time missed from rotations for such circumstances.

Tardiness is a form of absence that also may be excused using the criteria mentioned above. Students arriving late for a test may be given the test without an excused absence but will not be allowed extra time beyond the scheduled termination of the test. Once any student has completed the test and left the room, late-arriving students will not be permitted to take the test unless the absence is excused.

Absences that are not reported within 24 hours after the student returns to school will be considered unexcused. It is not the responsibility of a faculty member to determine whether an absence is excused. This determination will be made by the dean's office.

Students are expected to make every effort to keep abreast of their assignments during an absence. They should also be prepared to take tests upon their return to the school or at the discretion of the faculty member after considering the student's academic schedule. If, in the opinion of the dean's office, the nature of a student's absence made it impossible for that student to prepare for a test, the student will be granted an extension for taking the test.

The faculty member usually provides an equivalent make-up test within a reasonable period of time. The type and format of the make-up exam will be determined by the faculty member. Within the framework of the honor code, it may be possible to administer the same examination no more than 48 to 72 hours after the originally scheduled examination. Any make-up examination should be scheduled as soon as possible to avoid impeding the student's academic progress.

Academic progression

Attending pharmacy school is not a right acquired simply by conforming with the entrance requirements and paying tuition and fees. For this reason the dean and the Academic Performance Committee require that marginal or failing performance be improved or that the student withdraw from school. D grades are indicative of marginal performance. Careful consideration is given during the promotions process not only to the student's grades but also to his or her probity, industry and scholastic ability.

These guidelines delineate the course of action to be taken by the committee. Decisions regarding individual students will be made in accordance with these guidelines. Consideration will be given to pertinent information and extenuating circumstances for individual cases. The following statements present the prominent features of the promotions process.

1. **Process for academic progression**
   a. Students are evaluated for academic progression in the Doctor of Pharmacy degree program at the end of each semester by the Academic Performance Committee. At the end of the fourth year the entire faculty will decide whether or not students have satisfied all requirements for graduation. Promotion decisions are based on achievement during the year under review and on the student's overall progress.
   b. Students who have completed all course requirements each semester with minimum grades of C will progress to the next semester in the program.
   c. The Academic Performance Committee reviews the academic record of each student who fails to pass a course, receives a D grade, does not maintain a minimum GPA of 2.0 or is on academic probation, at the end of the fall or spring semester. When special circumstances require a review before scheduled meetings, the chair will convene a subcommittee to act on behalf of the full committee. Following each review, the committee may recommend a warning be given, promotion on a probationary basis, a repeat of any failed courses, a repeat of an entire semester, termination from the program or some combination of these academic sanctions.

2. **Course-level performance criteria**
   a. A, B, C, D and F grades will be awarded for courses with ordinal grading scales. Standardized criteria for performance scores will be A $\geq$ 90.00; B $\geq$ 80.00; C $\geq$ 70.00; D $\geq$ 65.00; F < 65.00 unless stated otherwise in the course syllabus. Students are directed to course syllabi for specific grading scales.
   b. P (pass), H (honors), HP (high pass) and/or F (Fail) grades will be awarded for courses with nominal grading scales. Students are directed to course syllabi for specific scales for assigning grades.

   c. A student who receives a grade of F (Fail) in a required course is placed on academic probation. Students must repeat the failed required course and earn a passing grade to avoid additional academic performance sanctions.
   d. Students who are on academic probation are deemed to be deficient in scholarship. They are neither allowed to hold an elected office in a student association nor eligible for nomination as an officer in a student association. Students are not permitted to represent the school in extracurricular activities (e.g., representation at a local, regional or national association meeting or other professional event). Students are expected to discontinue any outside employment during the academic year. Students are not eligible to pledge a professional fraternity.
   e. Students repeating all or any portion of a failed course must register to retake the failed course with the same course number, title and credit hours. A student is allowed to retake a course only once. The timing of any course retake is at the discretion of the respective course coordinator and department chair.
   f. A student who receives a grade of F (Fail) in an elective course is placed on academic probation. Students must repeat and pass the failed elective course to have it count toward meeting the electives requirement in the Doctor of Pharmacy degree program.

   g. If a student retakes a course at a time other than the regular course semester offering (e.g., during the summer), the criteria for academic performance and assessments must be specified in advance of the offering and acknowledged by the student. Students may be required to pay additional tuition for courses retaken during the summer.
   h. D grades are passing but considered indicative of marginal performance. A student receives an academic warning when

achieving a grade of D in any required or elective classes. Additional grades of D or F will result in academic probation or other academic performance sanctions.

   i. Students must receive passing grades for all required and elective courses in the Doctor of Pharmacy degree curriculum to avoid probation or other academic performance sanctions.

3. **Across curriculum performance criteria**
   a. Some courses in the Doctor of Pharmacy degree curriculum occur over more than one semester and are subject to different policies than courses that are offered for only one semester. Students are directed to course syllabi for specific grading scales.
   b. Students who fail a course prior to the start of an introductory pharmacy practice experience may proceed with the IPPE rotation.
   c. No student may start an advanced pharmacy practice experience rotation until all P1-P3 course requirements are satisfactorily fulfilled. Students who successfully retake failed courses can begin their APPEs depending on site/preceptor availability.

4. **Overall performance criteria**
   a. A student may fail no more than two courses during the P1-P3 years. A student failing more than two courses in the P1-P3 years may be dismissed from the program.
   b. Students must have passing grades in eight APPE courses in the P4 year. A student who receives a failing APPE grade must repeat the APPE course at a site to be determined by the director of the Office of Experiential Education. Only one failing APPE course grade is permitted. A second failing APPE grade will result in dismissal.
   c. All failing grades will be entered and retained in the student's transcript. Grades for courses that are repeated after failing and then passed will be added to but not replace the failing grade on the transcript. Failing grades for courses will count in the calculation of student grade-point averages.
   d. A minimum cumulative grade point average of 2.0 must be maintained by students enrolled in the Doctor of Pharmacy degree program. A student with a GPA less than 2.0 at the end of any semester will be placed on probation.
   e. Students who fail to meet conditions of academic probation spelled out in the academic probation letter may be required to repeat a year in the program or may be dismissed from the program. Students will not be allowed to repeat more than one year of the curriculum.
   f. The sanction of academic probation is removed after students successfully meet the academic progression standards for two consecutive semesters of attendance.
   g. To be awarded the Doctor of Pharmacy degree, students must complete all required courses with a passing grade and achieve a minimum cumulative GPA of 2.0 within seven years from the date of enrollment in the program.

Withdrawal

Students finding it necessary to withdraw from the School of Pharmacy must comply with the provisions for withdrawal set by the university.

The dean of the School of Pharmacy will not approve a request for withdrawal until the student has submitted a letter of resignation.

Students withdrawing without approval and failing to check out laboratory lockers will be assessed a fee and any charges resulting from the need to replenish the contents of the lockers.

Readmission

Students seeking readmission to the School of Pharmacy will be evaluated on their total academic record. Applicants for readmission to the first professional year will not be given priority over new applicants but must compete with them on an equal basis. Readmission in advanced standing will be considered on a space-available basis.

Graduation

Students are recommended and approved for the Doctor of Pharmacy degree by the faculty of the School of Pharmacy. Candidates must meet the following requirements:

1. Be of good moral character
2. Satisfactorily complete all the required work in a timely fashion, which will not normally exceed five years from the date of initial enrollment
3. Pay all fees prior to commencement
4. Complete the last year's work for the degree in residence in this school
5. Be present at the commencement-related exercises unless excused in writing and in advance by the dean
6. Satisfactorily complete the minimum number of required advanced practice experience rotations and demonstrate the attainment of minimum competencies

Financial aid

See the Professional studies section of this bulletin.

Courses of instruction

Enrollment in courses included in the Doctor of Pharmacy curricula summarized on the preceding pages requires the approval of the dean of the School of Pharmacy unless the student has been admitted to the Doctor of Pharmacy Program.

Admission

https://pharmacy.vcu.edu/admissions/pharmd/

The School of Pharmacy participates in the Pharmacy College Application Service. The electronic application is available on the PharmCAS website (https://www.pharmcas.org/). Application for the Doctor of Pharmacy program opens in mid-July of each year preceding the enrollment date. To view a list of current admission deadlines, visit the School of Pharmacy's website. Applicants who do not meet the PharmCAS deadlines will not be eligible for admission to the Doctor of Pharmacy degree program.

Students are only admitted at the start of the academic year (fall semester). The admissions committee begins reviewing applications during August of the year preceding admission, and operates on a rolling admissions basis. It is to the applicant's advantage to apply during the fall of the year before expected enrollment.

Admission requirements

The admission requirements for the Doctor of Pharmacy program are listed below. Meeting these requirements does not, however, guarantee acceptance into VCU School of Pharmacy.

1. Official application submitted online through PharmCAS, including personal statement.

2. Official transcripts supplied to PharmCAS from all colleges and universities attended. Applications are considered by the admissions committee only after transcripts on file show completion of no fewer than 30 semester hours (45 quarter hours) of college work.

3. Three letters of reference supplied directly to PharmCAS. These include a reference from a professor or faculty member (science-focused preferred), a health professional (pharmacist preferred) and an employer.

4. Prerequisites completed for admissions, including a minimum 52 semester hours (78 quarter hours) of course work taken at a U.S.-accredited college or university. Applicants must have earned a C or better in the courses specified to meet minimum academic requirements for admission. When offered, an acceptance is contingent upon satisfactory completion of all prerequisite courses listed below.

Credits earned through Advanced Placement tests, International Baccalaureate or Cambridge examinations may be accepted for prerequisite completion, but the credits must be made up through additional electives/course work to ensure the minimum 52 semester hour requirement. Refer to the VCU bulletin (https://bulletin.vcu.edu/undergraduate/undergraduate-study/admission-university/additional-sources-of-credit/#text) for a list of course equivalents based on exam scores.

Dual-enrollment credit earned during high school will be evaluated on an individual basis for prerequisite completion. Official transcripts from the college or university that awarded dual-enrollment credit must be provided to PharmCAS as part of the submitted application.

Course	Title	Hours
General biology (lecture and laboratory		8
College chemistry (lecture and laboratory)		8
Organic chemistry (lecture and laboratory)		8
Physics (lecture and laboratory)		4
Human anatomy [1,2]		3
Human physiology		3
Microbiology [1]		3
Biochemistry		3
English [3]		6
Calculus		3
Statistics		3
Minimum		**52**

[1] One hour of lab in these subjects is also preferred.

[2] If Human Anatomy and Physiology are taken together, both sections should be taken (i.e., Human Anatomy and Physiology I and II) to satisfy the 6-credit requirement.

[3] At least three semester hours of composition and rhetoric is required. Up to three semester hours can be fulfilled with documentation of a writing-intensive course.

Due to the importance of a strong biomedical science foundation for success in the Doctor of Pharmacy program, some or all of the courses listed below are highly recommended.

Course	Title	Hours
Genetics		3
Molecular biology		3
Immunology		3
Cell biology		3

1. Completion of an individual interview is mandatory for admission consideration.

2. Applicants who have resided fewer than 10 years in the United States and who have English as a second language should submit scores from the Test of English as a Foreign Language exam or other proof that their command of English is sufficient to allow successful completion of all requirements of the program. The TOEFL does not need to be taken if an applicant completes a bachelor's degree at an accredited U.S. college or university. TOEFL scores should be submitted directly to PharmCAS as part of the overall application.

3. Prior to enrolling, successful matriculants must meet the immunization requirements (https://bulletin.vcu.edu/academic-regs/university/immunizations/) set forth in the bulletin. Prior to entering the fourth professional year, students must satisfy all university and advanced pharmacy practice experiences site immunization requirements.

International Applicants

International students are eligible to apply to the Doctor of Pharmacy program provided they meet all established admission requirements, and the following:

1. Provide all transcripts for course work completed at foreign colleges or universities for translation and course-by-course evaluation to a certified agency. The School of Pharmacy will only accept evaluations from the World Education Services. WES electronic evaluations must be ordered directly through the PharmCAS application. If not ordered through the application, the evaluation will not be accepted. Instructions related to foreign transcript evaluations can be found on the PharmCAS website.

2. Score a minimum total score of 80 on the TOEFL. Scores are based on the TOEFL Internet-Based Test score comparison tables, published by Educational Testing Services. Official scores are valid for two years and must be submitted in PharmCAS (Code 8246) by the application deadline.

The TOEFL does not need to be taken if an applicant completes a bachelor's degree in a native English-speaking country. Such a degree must be awarded by the time of application. Native English-speaking countries include the following: U.S., Canada, United Kingdom, Ireland, Australia and New Zealand.

Selection Factors

The following criteria are considered when judging applicants:

- College attended
- Academic workload carried
- Overall college GPA
- Chemistry, biology and math proficiency

- Outside activities, extracurriculars, employment and achievements in high school and college
- Written and oral communication skills
- Extent of exposure to pharmacy practice
- Extent of exposure to other health disciplines
- Assessment provided from three references
- Personal interview performance

Time demands for the full-time program are rigorous. In general, the first three years require a Monday to Friday (8 a.m.-6 p.m.) commitment for lectures, conferences, laboratories and off-campus visits to area pharmacy practice sites. The fourth year is devoted to experiential learning at sites located throughout Virginia. Students enrolling in the four-year professional degree program must agree to the possibility of being assigned to sites beyond the Richmond metropolitan area (e.g., eastern, northern or western Virginia). Candidates must assess personal obligations prior to seeking application.

Transfer in advanced standing

VCU School of Pharmacy does not typically consider applications for transfer admission, as the curriculum across colleges and schools of pharmacy can differ significantly. Students who are interested in transferring into the Doctor of Pharmacy program should first meet with the associate dean of admissions to discuss their individual situation and prior completed coursework. Such meetings can be requested by emailing pharmacy@vcu.edu.

Any applications for transfer must be submitted to PharmCAS during a normal application cycle. The decision to transfer in advanced standing is at the discretion of the admissions committee.

Disability support services

VCU does not discriminate against qualified applicants for admission who have disabilities, and seeks to provide reasonable accommodation to applicants and admitted students who identify themselves as having disabilities. All accommodation requests are handled on an individual basis. Examples of accommodations include: extended test taking time, note takers, readers, scribes, quiet testing area and assistive technology. Academic requirements essential to the program or directly related to licensing requirements will not be substituted.

Upon acceptance into the program, students in need of accommodation may contact the Division for Academic Success at (804) 828-9782 or das.vcu.edu (https://das.vcu.edu/) to discuss their needs. All disclosures are confidential and released only with permission.

Curriculum requirements

Course	Title	Hours
IPEC 501	Foundations of Interprofessional Practice	1
IPEC 502	Interprofessional Quality Improvement and Patient Safety	1
IPEC 560	Interprofessional Collaborative Care for Older Adults	1
MEDC 527	Basic Pharmaceutical Principles for the Practicing Pharmacist	3
MEDC 533	Pharmacognosy	1
MEDC 542	Biotechnology-derived Therapeutic Agents	1
MEDC 553	Concepts in the Medicinal Chemistry of Therapeutics Agents	1
PCEU 507	Pharmaceutics and Biopharmaceutics I	2.5
PCEU 508	Pharmacokinetics	3
PCEU 509	Pharmaceutics and Biopharmaceutics II	3
PCEU 601	Applied Pharmacokinetics and Pharmacogenomics	2.5
PHAR 501	Pharmaceutical Calculations	1
PHAR 502	Introduction to Pharmacoeconomics	1
PHAR 503	Ethics and Equity	1.5
PHAR 505	Pathophysiology and Patient Assessment Skills	3
PHAR 506	Nonprescription Medications and Self-care	2
PHAR 507	Introduction to Health Informatics	1
PHAR 508	Evidence-based Pharmacy I	2
PHAR 511	Evidence-based Pharmacy II	2
PHAR 515	Continuous Professional Development I	1
PHAR 523	Foundations I	2
PHAR 524	Foundations II	1.5
PHAR 530	Introductory Pharmacy Practice Experience: Community Practice	4
PHAR 532	Introductory Pharmacy Practice Experience: Hospital Practice	3
PHAR 533	Introductory Pharmacy Practice Experience: Patient Care	.5
PHAR 534	Foundations III	1.5
PHAR 535	Foundations IV	1.5
PHAR 544	Clinical Therapeutics Module: Cardiovascular	4.5
PHAR 545	The U.S. Health Care System	1.5
PHAR 546	Pharmacy-based Immunization Delivery	1.5
PHAR 551	Pharmacy-based Point of Care Testing	1.5
PHAR 555	Clinical Therapeutics Module: Endocrinology	2.5
PHAR 556	Clinical Therapeutics Module: Neurology	3.5
PHAR 602	Clinical Therapeutics Module: Psychiatry	3
PHAR 603	Clinical Therapeutics Module: Respiratory/Immunology	2.5
PHAR 604	Clinical Therapeutics Module: Infectious Diseases	4
PHAR 605	Clinical Therapeutics Module: Hematology/Oncology	2.5
PHAR 606	Clinical Therapeutics Module: Nephrology/Urology	2
PHAR 609	Clinical Therapeutics Module: Reproductive Health, Dermatology, EENT, Bone and Joint	3.5
PHAR 615	Continuous Professional Development II	1
PHAR 618	Clinical Therapeutics Module: Gastrointestinal/Nutrition	2.5

PHAR 640	Foundations V	1.5
PHAR 645	Foundations VI	1.5
PHAR 652	Health Promotion and Communication in Pharmacy Practice	2
PHAR 702	Pharmacy Practice Management	2.5
PHAR 703	Clinical Therapeutics Module: Complex Patient Cases and Critical Care	3.5
PHAR 715	Continuous Professional Development III	1
PHAR 724	Pharmacy Law	2.5
PHAR 730	Continuous Professional Development IV	.5
PHAR 760	Acute Care Pharmacy Practice I	5
PHAR 761	Advanced Hospital Pharmacy Practice	5
PHAR 763	Ambulatory Care Pharmacy Practice	5
PHAR 765	Elective I	5
PHAR 766	Elective II	5
PHAR 767	Clinical Selective I	5
PHAR 768	Advanced Community Pharmacy Practice	5
PHAR 773	Acute Care Pharmacy Practice II	5
PHTX 606	Introduction to Pharmacology of Therapeutic Agents	1
Electives		8
Total Hours		**148.5**

The minimum number of credit hours required for this degree is 148.5.

Students who complete the above requirements will receive a Doctor of Pharmacy.

Plan of study

P1 year

Fall semester

		Hours
IPEC 501	Foundations of Interprofessional Practice	1
MEDC 527	Basic Pharmaceutical Principles for the Practicing Pharmacist	3
MEDC 533	Pharmacognosy	1
PCEU 507	Pharmaceutics and Biopharmaceutics I	2.5
PHAR 501	Pharmaceutical Calculations	1
PHAR 505	Pathophysiology and Patient Assessment Skills	3
PHAR 515	Continuous Professional Development I (continues)	-
PHAR 523	Foundations I	2
PHAR 545	The U.S. Health Care System	1.5
PHAR 652	Health Promotion and Communication in Pharmacy Practice	2
	Term Hours:	**17**

Spring semester

MEDC 553	Concepts in the Medicinal Chemistry of Therapeutics Agents [1]	1
PCEU 508	Pharmacokinetics	3
PCEU 509	Pharmaceutics and Biopharmaceutics II	3
PHAR 506	Nonprescription Medications and Self-care	2

PHAR 515	Continuous Professional Development I	1
PHAR 524	Foundations II	1.5
PHAR 530	Introductory Pharmacy Practice Experience: Community Practice	4
PHAR 544	Clinical Therapeutics Module: Cardiovascular [1]	4.5
PHTX 606	Introduction to Pharmacology of Therapeutic Agents [1]	1
	Term Hours:	**21**

P2 year

Fall semester

MEDC 542	Biotechnology-derived Therapeutic Agents [1]	1
PCEU 601	Applied Pharmacokinetics and Pharmacogenomics	2.5
PHAR 508	Evidence-based Pharmacy I	2
PHAR 534	Foundations III	1.5
PHAR 546	Pharmacy-based Immunization Delivery [1]	1.5
PHAR 555	Clinical Therapeutics Module: Endocrinology [1]	2.5
PHAR 603	Clinical Therapeutics Module: Respiratory/Immunology [1]	2.5
PHAR 615	Continuous Professional Development II (continues)	-
PHAR 618	Clinical Therapeutics Module: Gastrointestinal/Nutrition [1]	2.5
Elective [2]		2
	Term Hours:	**18**

Spring semester

IPEC 502	Interprofessional Quality Improvement and Patient Safety	1
PHAR 502	Introduction to Pharmacoeconomics	1
PHAR 503	Ethics and Equity	1.5
PHAR 511	Evidence-based Pharmacy II	2
PHAR 532	Introductory Pharmacy Practice Experience: Hospital Practice	3
PHAR 535	Foundations IV	1.5
PHAR 604	Clinical Therapeutics Module: Infectious Diseases [1]	4
PHAR 606	Clinical Therapeutics Module: Nephrology/Urology [1]	2
PHAR 615	Continuous Professional Development II	1
Elective [2]		2
	Term Hours:	**19**

P3 year

Fall semester

PHAR 507	Introduction to Health Informatics	1
PHAR 551	Pharmacy-based Point of Care Testing [1]	1.5
PHAR 556	Clinical Therapeutics Module: Neurology [1]	3.5
PHAR 602	Clinical Therapeutics Module: Psychiatry [1]	3
PHAR 605	Clinical Therapeutics Module: Hematology/Oncology [1]	2.5
PHAR 640	Foundations V	1.5

PHAR 715	Continuous Professional Development III (continues)	-
Elective [2]		2
	Term Hours:	**15**
Spring semester		
IPEC 560	Interprofessional Collaborative Care for Older Adults	1
PHAR 533	Introductory Pharmacy Practice Experience: Patient Care	.5
PHAR 609	Clinical Therapeutics Module: Reproductive Health, Dermatology, EENT, Bone and Joint [1]	3.5
PHAR 645	Foundations VI	1.5
PHAR 702	Pharmacy Practice Management	2.5
PHAR 703	Clinical Therapeutics Module: Complex Patient Cases and Critical Care [1]	3.5
PHAR 715	Continuous Professional Development III	1
PHAR 724	Pharmacy Law	2.5
Elective [2]		2
	Term Hours:	**18**
P4 year (over 45 weeks)		
Fall semester		
PHAR 730	Continuous Professional Development IV	.5
PHAR 760	Acute Care Pharmacy Practice I	5
PHAR 761	Advanced Hospital Pharmacy Practice	5
PHAR 763	Ambulatory Care Pharmacy Practice	5
PHAR 765	Elective I	5
PHAR 766	Elective II	5
PHAR 767	Clinical Selective I	5
PHAR 768	Advanced Community Pharmacy Practice	5
PHAR 773	Acute Care Pharmacy Practice II	5
	Term Hours:	**40.5**
	Total Hours:	**148.5**

[1]

Course will be taught as a module.

[2]

Students will complete four total credits of electives over the course of the year.

The minimum number of credit hours required for this degree is 148.5.

Accelerated opportunities

The School of Pharmacy offers opportunities for qualified undergraduate students to earn both an undergraduate and professional doctor of pharmacy degree in a minimum of 7 years by completing first-year doctor of pharmacy courses during the senior year of the bachelor's of science in pharmaceutical sciences program. The bachelor's degree will be conferred after successful completion of the first-year of the doctor of pharmacy program. See the individual program page in the Undergraduate Bulletin for details.

• B.S. in Pharmaceutical Sciences and Doctor of Pharmacy (https://bulletin.vcu.edu/undergraduate/pharmacy/pharmaceutical-sciences-bs/#acceleratedbsandpharmdtext)