

# PHARMACY, PHARM.D.

## Program Description

The mission of the Marshall University School of Pharmacy is to prepare its students to become pharmacy practitioners that excel as skilled and productive health care professionals in the provision of services, in the standards of care, and in the discovery of new knowledge that ensures optimal medication therapy outcomes. The school utilizes an integrated, inter-professional education approach combined with a team-based clinical philosophy that emphasizes inquiry-based learning, while advancing scholarship, research, and patient care, all directed toward the goal of improving the health and well-being of West Virginians, residents of the Tri-state region, and the nation.

Central to the program's mission is the development of the key skills and abilities (termed terminal outcomes) required for competent pharmacy practice. These terminal outcomes expect all students who graduate from the Marshall University School of Pharmacy Pharm.D. program to be able to:

1. LEADER - Demonstrate responsibility for creating and achieving shared goals, regardless of position.
2. PATIENT 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).
3. PRACTICE MANAGER - Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems and pharmacy operations.
4. PROMOTER - Contributes to identifying and promote solutions for public health challenges for patients and society.
5. PROVIDER - Describe how population-based care influences patient-centered care and influences the development of practice guidelines and evidence-based best practices.
6. PROBLEM SOLVER – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.
7. EDUCATOR - Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.
8. COLLABORATOR - Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.
9. INCLUDER - Recognize social determinants of health to diminish disparities and inequities in access to quality care
10. COMMUNICATOR - Effectively communicate verbally and nonverbally when interacting with an individual, group or organization
11. SELF-AWARE/SELF DEVELOPER - Demonstrates personal and professional development.
12. LEADER - Demonstrates responsibility for creating and achieving shared goals, regardless of position.
13. INNOVATOR -Demonstrates innovative and entrepreneurial skills in pharmacy practice.
14. PROFESSIONAL - Demonstrates professionalism and integrates effectively as part of the patient care team.

The program requires a minimum of 4 years and 9 semesters of coursework, capstone, or practicum experiences.

## Accreditation Status

Marshall University's Doctor of Pharmacy program has been granted full accreditation status by the Accreditation Council for Pharmacy Education (ACPE) Board of Directors. For an explanation of the ACPE accreditation process, please contact the Accreditation Council for Pharmacy Education, 135 South LaSalle Street, Suite 4100, Chicago, IL 60603, 312-644-3575; FAX 312-664-4652, website [www.acpe-accredit.org](http://www.acpe-accredit.org) (<http://www.acpe-accredit.org>)

## Admission Requirements

### Minimum Requirements for Admission

Admission to Marshall University School of Pharmacy is competitive. The school admits a maximum of 80 students per year. Applicants are directed to apply to the Marshall University School of Pharmacy through the Pharmacy College Application Service (PharmCAS, [www.pharmcas.org](http://www.pharmcas.org) (<http://www.pharmcas.org>)).

Regular admission to the Pharm.D. program requires the student to have:

1. Students enrolled in an undergraduate degree should have completed all required pre-pharmacy courses (*note*: inquiries regarding prerequisite course equivalency should be forwarded to MUSOP Student Affairs at 304-696-7302). These courses include:

Code	Title	Credit Hours
	English Composition (2 semesters)	6
	Calculus (1 semester)	3
	Statistics (1 semester)	3
	Biology with Lab (2 semesters)	8
	Chemistry with Lab (2 semesters)	8
	Human Anatomy (1 semester)	4
	Human Physiology (1 semester)	4
	Microbiology (1 semester)	4
	Organic Chemistry with Lab (2 semesters)	8
	Physics with Lab (1 semester)	4
	Social Science elective (1 semester)	3

2. A recommended minimum undergraduate Grade Point Average (GPA) of 2.5 or higher on a 4.0 scale for all previously completed undergraduate university work.
3. A recommended minimum GPA of 2.75 or higher on a 4.0 scale for all prerequisite courses.
4. Three (3) letters of professional recommendation requested from persons such as pharmacists, supervisors, and professors who can tell us about your academic and/or work capabilities which would enable you to succeed in the School of Pharmacy.
5. Completed an application through PharmCAS.
6. Submitted all required application fees.
7. Successfully completed an on-site interview.

## Early Assurance Pathway to PharmD Program

Marshall University School of Pharmacy (MUSOP) offers an early assurance program known as the Pharmacy Early Assurance Scholars Program. The program is designed for outstanding students who are committed to pursuing pharmacy as a career upon high school graduation. The program is intended to recognize outstanding students with provisional early assurance to the MUSOP PharmD program. Students who are admitted into this program are expected to meet all requirements to successfully matriculate into the MUSOP PharmD Program. All Early Assurance pathway students will receive academic advising by a pre-professional academic advisor in the College of Science. Additionally, students will be granted full admission to the pre-pharmacy club with access to members-only networking events, exclusive merchandise, and all associated pharmacy club fees covered by the School of Pharmacy.

### Program Requirements

- Students enrolling directly from high school must enroll as a freshman.
- Students must submit the Marshall Pharmacy Early Assurance Scholars Program Application no later than June 1 of the high school graduation year.
- Students must indicate pre-pharmacy as their intended concentration upon entry to Marshall University. Note: Students have the choice of pursuing the 1+4, 2+4 accelerated pathway or one of the 3+4 accelerated pathways. If pursuing the 3+4 accelerated pathway, the student should choose Biology, Chemistry, Health Sciences, or Pharmaceutical Sciences as their major.

All prerequisite coursework must be completed at Marshall University or at an approved partner institution (waivers may be considered on a case-by-case basis for exceptional circumstances). All coursework taken off campus must be obtained from an accredited U.S. institution for a letter grade. pass/fail, online/distance learning and foreign courses are not accepted.

Students must maintain continuous full-time university enrollment (excluding summer terms).

Note: Students who do not submit the early assurance application by June 1 of the high school graduation year will not be eligible for early assurance program but can still pursue the indicated accelerated pathways if they meet the GPA requirements.

## ACCELERATED PATHWAYS

Marshall University School of Pharmacy has partnered with Marshall University at the undergraduate level to provide a seamless, accelerated transition into pharmacy school. By offering multiple accelerated pathways, Marshall University undergraduate students have the ability to choose the pathway that is the best fit to their particular needs. Accelerated pathways available include:

## 1+4 Accelerated Pathway for Exceptional Students

Earn your Pharm.D. in 5 years with this fast-track option.

The accelerated pathway is designed for high school students with a strong academic record and demonstrated motivation to enter the field of pharmacy. Students who have met the below criteria during their high school career are eligible to apply:

- ACT MATH of 24 (or equivalent SAT/Placement score; for MU pre-requisite courses)
- ACT ENG of 21 (or equivalent SAT score for MU pre-requisite courses)

Minimum unweighted high school grade point average of 3.5 on a 4.0 scale

Applications will be evaluated by the Admissions Committee, and students who meet the requirements will be invited to interview for the PharmD program. Interviews will be conducted in the same manner as traditional PharmD interviews. Students who successfully complete the interview will be offered conditional admissions to the PharmD program for the following year. Full admission will be granted once all admissions requirements are met:

- If attending Marshall University to complete their pre-requisite coursework, students must declare a Pharmaceutical Sciences major. \*Exceptions may be made on a case-by-case basis based on availability of courses.
- Successful completion of 40 prerequisite credit hours prior to matriculation
- A minimum of 3.3 cumulative GPA in the prerequisite coursework
- Any additional required materials (transcripts, letters of recommendation, etc.) as outlined by the Admissions Committee

Students who are conditionally admitted but do not maintain the above requirements will still be eligible to apply to the PharmD program through either the Early Assurance program or traditional application process.

International Students: International students are welcome to apply and will be required to complete the same criteria as domestic students (above). Additional requirements such as an English Proficiency test, immunization record, proof of funding and other requirements as stipulated by Marshall University must be met if requested. Applications will be evaluated by the Admissions Committee, and students who meet the requirements will be invited to interview virtually for the PharmD program. Interviews will be conducted in the same manner as traditional PharmD interviews. Students who successfully complete the interview will be offered conditional admissions to the PharmD program for the following year. Full admission will be granted once all admissions requirements are met:

- Students must declare a Pharmaceutical Sciences major and complete prerequisite coursework at Marshall University. \*Exceptions may be made on a case-by-case basis based on availability of courses.

- Successful completion of 40 prerequisite credit hours prior to matriculation
- A minimum of 3.3 cumulative GPA in the prerequisite coursework
- Any additional required materials (transcripts, letters of recommendation, etc) as outlined by the Admissions Committee. Students admitted to the PharmD program through this pathway are required to complete a 0 credit pre-pharmacy boot camp in summer before enrolling for PharmD courses. Additionally, students in this pathway must join and actively participate in the pre-pharmacy club.

The prerequisite courses include:

Code	Title	Credit Hours
	English Composition (1 semester)	6
	Calculus (1 semester)	3
	Statistics (1 semester)	3
	Biology with Lab (2 semesters)	8
	Chemistry with Lab (2 semesters)	8
	Human Anatomy (1 semester)	4
	Human Physiology (1 semester)	4
	Microbiology (1 semester)	4

## 2+4 Accelerated Pathway

Earn your Pharm.D. in 6 years with this fast-track option. Students must complete 55 credit hours of prerequisites as indicated in general admissions criteria.

Marshall University College of Science Pre-Pharmacy 2+4 Accelerated Pharm.D. Pathway.

Note: Students must have a minimum high school GPA of 3.3 and prerequisite GPA of 2.75 and submit all other materials as required for application.

## 3+4 Accelerated Pathways

Earn both your bachelor's degree and Pharm.D. degree in 7 years with one of the following fast-track options.

- Marshall University College of Science Chemistry Major 3+4 Accelerated B.S.-to-Pharm.D. Pathway
- Marshall University College of Science Biology Major 3+4 Accelerated B.S.-to-Pharm.D. Pathway
- Marshall University College of Health Professions Health Sciences Major 3+4 Accelerated B.S.-to-Pharm.D. Pathway
- Marshall University School of Pharmacy Pharmaceutical Sciences Major 3+4 Accelerated B.S.-to-Pharm.D. Pathway

Note: Students must have a minimum high school GPA of 3.3 and prerequisite GPA of 2.75 and submit all other materials as required for application.

## Prerequisite Requirements for International Applicants with Undergraduate Pharmacy Degrees

International applicants who have completed a BS in Pharmacy at an international institution are eligible to apply for the PharmD program. The process to apply to the PharmD program is to submit an application through PharmCAS and pay applicable application fees. Applicants must have a minimum of 3.0 GPA on a 0 to 4.0 scale. Transcripts must be evaluated by a NACES Member evaluation company. A complete list that the NACES member list can be found at [www.naces.org/members](http://www.naces.org/members). Evaluations must be based on authenticated and/or verified documents and cannot be based on scans or unverified document. Applicants will also submit 3 letters of recommendation with their application and meet Marshall University English Proficiency requirements. Applicants must complete an interview with the School of Pharmacy. For international applicants, a virtual interview option will be available.

## Program Requirements

### Academic Performance

Students are eligible for graduation upon successful completion of all academic and clinical (Professional Practice Experiences) requirements and documented competency in the P4 Annual Assessment of Competency. The student must earn a minimum of 155 semester credit hours. The expected graduation grade point average is 3.0 with the minimum grade point average of 2.5. The student is responsible for knowing and satisfying degree and graduation requirements. Students must be enrolled in the term in which they plan to graduate.

### Time Limitations

If a student has not completed his/her Pharm.D. degree within six years from the end of the first course to be counted toward his/her degree, and if the student has not been enrolled in a course toward that degree for the most recent one year when that seven-year limit is reached (meaning the sixth year), then the student will be dropped from the program. To continue to work on that degree, the student must reapply for admission to that degree program through the regular graduate admission process, and pay the appropriate admission fees.

## Plan of Study

The curriculum is designed to be completed over 4 years or 9 semesters. A summary of the courses composing the curriculum is found below:

First Year		Credit Hours
First Semester		
PHAR 501	Pharm Cont Prof Dev	0
PHAR 512	Pharmacy Skills Lab I	1
PHAR 524	Drug Info & Comm Skills	2
PHAR 531	Biopharmaceutics I	3
PHAR 533	Introduction to Pharmacy 1	3
PHAR 542	Immunology and Microbiology	4
PHAR 547	Pharmaceutical Chemistry	4
<b>Credit Hours</b>		<b>17</b>

**Second Semester**

PHAR 502	Pharm Cont Prof Dev	0
PHAR 523	Pharmacogenomics	2
PHAR 532	Biopharmaceutics II	3
PHAR 536	Introduction to Pharmacy 2	3
PHAR 537	Pharmacokinetics	3
PHAR 538	Pharmacy Skills Lab 2	3
PHAR 544	Prin of Disease & Drug Action	4
PHAR 811	Pharm Prac Exp I (IPPE 1) (1 day for 5 weeks; completed within first 10 weeks )	1

---

**Credit Hours** **19**

**Second Year****Summer**

PHAR 821	IPPE Institutional	2
----------	--------------------	---

---

**Credit Hours** **2**

**First Semester**

PHAR 503	Pharm Cont Prof Dev	0
PHAR 623	Patient Safety	2
PHAR 636	Pharm Skills Lab III	3
PHAR 635	Research Outcomes Patient Care	3
PHAR 641	Therapeutics I	4
PHAR 662	Pharmacy Administration	6
PHAR 813	IPPE 3 Community 2	1

---

**Credit Hours** **19**

**Second Semester**

PHAR 504	Pharm Cont Prof Dev	0
PHAR 637	Pharm Skills Lab IV	3
PHAR 652	Therapeutics 3 Cardiology	4
PHAR 643	Therapeutics 3 GI & Renal	4
PHAR 644	Therapeutics 4 Endocrine	4
Elective		3

---

**Credit Hours** **18**

**Third Year****Summer**

PHAR 816	Inpatient Clinical Skills (hospital; 1 week)	1
----------	--	---

---

**Credit Hours** **1**

**First Semester**

PHAR 505	Pharm Cont Prof Development	0
PHAR 735	Pharmacy Law & Ethics	2
PHAR 737	Pharmacy Skills Lab 5	3
PHAR 752	Neuro & Psychiatric Dis	5
PHAR 761	HemeOnc Nutrition Hepa MS	6
PHAR 815	Phar Prac Exp 5 IPPE 5	1

---

**Credit Hours** **17**

**Second Semester**

PHAR 506	Pharm Cont Prof Dev 6	0
PHAR 723	Special Populations	2
PHAR 730	Derm/Ophthalmic/Musc Dis	3
PHAR 743	Therapeutics 9 Hem Onc	4
PHAR 736	Pharmacy Skills Lab 6	3
Elective (P2/P3 Year)		3

PHAR 817	Intro Phar Prac Exp IPPE 7	1
----------	----------------------------	---

---

**Credit Hours** **16**

**Fourth Year****Summer**

PHAR 881	APPE 1-General Medicine	5
PHAR 882	APPE 2-Amb Care/Prim Care	5
PHAR 883	APPE 3-Advanced Community	5
PHAR 884	APPE 4-Adv Institutional	5
PHAR 885	APPE 5-Geriatrics	5
PHAR 886	APPE 6-Diverse Populations	5
PHAR 887	APPE 7 & 8-Electives	5
PHAR 887	APPE 7 & 8-Electives	5
PHAR 891	Pharmacy Capstone	2
PHAR 892	Pharmacy Capstone 2	2

---

Summer, Fall, Spring

---

**Credit Hours** **44**

---

**Total Credit Hours** **153**

*Note: PHAR courses may not always coincide with the university academic calendar.*