

PHARMACY, DUAL DEGREE: PHARM.D. AND M.S.H.I.

Students admitted to the School of Pharmacy Doctor of Pharmacy program may also seek admission to pursue a Master of Science (MS) degree in Health Informatics (MSHI). The application procedure and the student's enrollment status will vary depending on the student's undergraduate degree.

All students wishing to pursue the dual degree option must first consult with the PharmD advisor regarding when they should apply for admission. Students who are admitted to the MSHI program will be advised by a PharmD advisor (primary) and an MSHI advisor (secondary). The advisors are responsible for ensuring students are making appropriate progress toward both degrees, enroll in the proper sequence of courses, and enroll in the proper section of the courses.

Admission Requirements

Students who wish to pursue the dual degree- PharmD/MSHI (Health Informatics) program must first be admitted to the Doctor of Pharmacy program and then must complete and submit to the graduate college, an application that meets the following requirements for admission.

Applications may be submitted under the Graduate applicant link on Marshall University's Admissions website (<https://www.marshall.edu/admissions/apply/>). Requirements for program admission include:

- Students must have an undergraduate Grade Point Average (GPA) of 2.5 or higher on a 4.0 scale from their undergraduate degree granting institution.
- Official transcripts from degree-granting institutions (additional transcripts may be required, at the discretion of the program). International students must submit transcripts evaluated by a credentialing agency such as WES or a member of NACES.
- No entrance exam is required; however, a Graduate Record Exam (GRE) score may be submitted to strengthen an application.
- All international applicants, regardless of citizenship, must provide proof of English proficiency to be considered for admission to Marshall University. English proficiency requirements are available here: <https://www.marshall.edu/international-admissions/proof-of-english-proficiency/>.

Admission Requirements

Pharm. D. Students Holding a Baccalaureate Degree: All students who have earned a baccalaureate degree from an accepted, accredited college or university may apply for admission to the MSHI program. Students must meet the published admission criteria and complete the published degree requirements for the MSHI program. When admitted, the student will be classified depending upon his or her completion of core courses.

Pharm. D. Students Who Do Not Have a Baccalaureate Degree: Students who have not earned a baccalaureate degree from an accepted, accredited college or university may apply for admission to the MSHI program and pursue the degree under the following conditions. During their enrollment in the two degree programs, students who do not hold the baccalaureate will be continuously classified as

Provisionally Admitted for the MSHI program. Students beginning the final semester of the Pharm. D. program of study will apply for graduation. Students in good academic standing in both programs and eligible to receive both degrees at the end of the term will be reclassified as Fully Admitted to the MSHI program. Students who withdraw or are dismissed from the Pharm. D. program will also be withdrawn from the MSHI program regardless of level of degree completion or academic standing.

Graduation Requirements

Requirements for MSHI Degree:

A Plan of Study approved by the student's advisor must be submitted for approval to the director of graduate studies before the student registers for his or her 12th semester hour. The Plan of Study is a student's "blueprint" for completing the graduation requirements.

- Students must complete the required 33 hours (including dual credits) of graduate/professional level coursework.
- MSHI students will be required to complete the Health Informatics Practicum (HIN 650 (<https://catalog.marshall.edu/search/?P=HIN%20650>) Health Informatics Practicum), which includes successfully completing at least 400 hours in an educationally directed Health Informatics internship at one of several Health Informatics job sites which have been approved by the MSHI program director. The student internships consist of job placements within the Health Informatics field at academic, government or healthcare industry levels.

Requirements for Doctor of Pharmacy Degree (PharmD):

Academic Performance

Students are eligible for graduation upon successful completion of all academic (courses and examinations) and clinical (experiential learning) coursework. 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 (for all degrees):

If a student has not completed his/her PharmD/MSHI degrees within six years from the end of the first course to be counted toward his/her degrees, 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

Successful completion of the required curriculum will result in both a PharmD degree and an MS in Health Informatics.

*Please note that 12 credit hours from PharmD and MS Programs are dual counted towards the completion of the MSHI and PharmD degrees

Plan of Study

The curriculum is designed to be completed over 4 years/ 11 semesters. A summary of the courses composing the curriculum is found below:

First Year

Fall		Credit Hours
PHAR 512	Pharmacy Skills Lab I	2
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
PHAR 591	Cont Prof Dev (CPD) 1	1
HIN 605	The Role of EHR and PHR (MSHI Required Course)	3
Credit Hours		22

Spring

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 592	Cont Prof Dev (CPD) 2	1
MIS 623	Database Management (MSHI Required Course)	3
HIN 610	Intro to Health Informatics (MSHI Required Course)	3
Credit Hours		25

Summer

PHAR 548	Intro to Community Pharm IPPE	0
PHAR 550	Intro to Institutional IPPE	0
Credit Hours		0

Second Year

Fall		Credit Hours
PHAR 593	Cont Prof Dev (CPD) 3	1
PHAR 623	Patient Safety	2
PHAR 635	Research Outcomes Patient Care (3 hour dual credit for MSHI) ¹	3
PHAR 636	Pharm Skills Lab III	3
PHAR 641	Therapeutics 1 - OTC/Self-Care	4
PHAR 663	Healthcare Admin & Leadership (3 hour dual credit for MSHI) ²	3
PHAR 664	Pharmacoecon & Health Outcomes	3
MIS 624	Data Warehousing (MSHI Required Course)	3
Credit Hours		22

Spring

PHAR 594	Cont Prof Dev (CPD) 4	1
PHAR 637	Pharm Skills Lab IV	3
PHAR 643	Therapeutics 3 GI & Renal	4

PHAR 644	Therapeutics 4 - Endocrine	4
PHAR 652	Therapeutics 2 - Cardiology	5
HIN 620	Legal Health & Informat (MSHI Required Course)	3

Credit Hours **20**

Summer

PHAR 649	Intro Outpt Clin Skills IPPE	0
PHAR 650	Intro Inpat Clin Skills IPPE	0

Credit Hours **0**

Third Year

Fall		Credit Hours
PHAR 595	Cont Prof Dev (CPD) 5	1
PHAR 735	Pharmacy Law & Ethics	3
PHAR 737	Pharmacy Skills Lab 5	3
PHAR 752	Therapeutics 6 - Neuro/Psych	5
PHAR 762	Infect Disease Therapeutics	5
HCA 656	Mgt of Medical Technology (MSHI Required Course)	3
MIS 670	Business Sys Proj Mgt (Dual Credit MSHI/ PharmD (Required course for MSHI; Dual credit given as PharmD elective-PHAR 801 Sp. Top)) ³	3

Credit Hours **23**

Spring

PHAR 596	Cont Prof Dev (CPD) 6	1
PHAR 724	Special Populations	3
PHAR 730	Therapeutics 8 - Derm/Opht/MUS	3
PHAR 736	Pharmacy Skills Lab 6	3
PHAR 743	Therapeutics 9 - Hem/Oncology	4
PHAR 802	Special Topics II (PharmD Elective only)	3

Credit Hours **17**

Summer

PHAR 881	APPE - Adv Inpat Clin Skills	5
PHAR 882	APPE - Adv Outpat Clin Skills	5

Credit Hours **10**

Fourth Year

Fall		Credit Hours
PHAR 883	APPE - Advanced Community	5
PHAR 884	APPE 4-Adv Institutional	5
PHAR 885	APPE - Transitions of Care	5
PHAR 891	Pharmacy Capstone I	2

Credit Hours **17**

Spring

PHAR 886	APPE - Diverse Populations	5
PHAR 887	APPE - Elective (Repeatable course (10 total hours) - Elective; 5 SCH is dual credit for HIN 650 (3 SCH)) ⁴	10
PHAR 892	Pharmacy Capstone 2	2
HIN 664	Advanced Health Informatics (MSHI Required Course)	3

Credit Hours **20**

Total Credit Hours **176**

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

- ¹ PHAR 635 Research Outcomes Patient Care (3 Credits) will be taken by dual degree students in lieu of STA 518 Biostatistics (3 Credits).
- ² PHAR 663 Healthcare Admin & Leadership (3 Credits) will be taken by dual degree students in lieu of HCA 600 The Health Care System (3 Credits).
- ³ MIS 670 Business Sys Proj Mgt will be taken in lieu of PHAR 801 Special Topics I (PHAR Elective).
- ⁴ PHAR 887 APPE - Elective (5 of 10 credit hours) will be taken in lieu of HIN 650 Health Informatics Practicum. Only 3 credit hours from PHAR 887 will go towards the dual degree.