



MEMORANDUM OF UNDERSTANDING BETWEEN MARSHALL UNIVERSITY AND SHAWNEE STATE UNIVERSITY LEADING TO A DOCTOR OF PHARMACY DEGREE (Pharm.D.)

Marshall University and Shawnee State University, to promote and facilitate the educational opportunities afforded students interested in pursuing a pharmacy education, establish this memorandum of understanding (MOU). This MOU outlines two different pathways for potential Shawnee State Students. In the first pathway (Appendix B), students complete a series of courses that, when satisfactorily completed by Shawnee State University students, will meet the Pharm.D. degree's prerequisite requirements and facilitate student enrollment within the Marshall University School of Pharmacy. In the second pathway, students who have satisfactorily completed the program of study outlined in this agreement (Appendix C) and who meet admission requirements for the School of Pharmacy may use the first year at Marshall University to count toward both the B.S. at Shawnee State University and toward the Pharm.D. at Marshall, allowing a student to earn both degrees in an accelerated 7-year time frame rather than the traditional 8 years.

Marshall University and Shawnee State University agree to monitor and support the provisions of this agreement to ensure the consistency, quality, and transferability of students interested in pursuing a Pharm.D. degree. Marshall University and Shawnee State University agree to coordinate changes in the course content and/or requirements for any courses listed in the MOU for the purpose of ensuring continued comparability between the courses offered on each campus. Marshall University and Shawnee State University agree to renegotiate this agreement when changes to the Pharm.D. curriculum occur, or when changes in the graduation requirements for either institution become necessary. This process will be the responsibility of the appropriate deans at both institutions.

Students pursuing the Pharm.D. degree through the memorandum of understanding, will be bound by the curriculum description outlined in Appendix B (Pathway #1) or Appendix C (Pathway #2) in effect at the time they are officially accepted into the Pharm.D. program. The attached curriculum sheets dated November 1, 2022 will be in effect until officially changed and agreed upon by both institutions. The minimum transfer requirements to the Pharm.D. program with Marshall University are noted in (Appendix B).

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Dr. Eric Blough
Dean
Marshall University
School of Pharmacy

Date 1/19/2023 | 8:39 AM PST

Dr. Kimberly E. Inman
Interim Dean
College of Arts and Sciences
Shawnee State University

Date 1/19/2023 | 11:47 AM EST

APPENDIX A:

PROCESS

Any student attending Shawnee State University that selects to pursue the Pharm.D. degree program at Marshall University, will take any/all the courses listed in Appendix B through Shawnee State University. Upon transfer to Marshall University School of Pharmacy, the listed courses will be accepted by Marshall University as meeting the required pre-pharmacy course requirement indicated for that course.

As part of the memorandum of understanding, Marshall University School of Pharmacy agrees to give preferential consideration during each admission cycle for Shawnee State University students who select to transfer to the Pharm.D. program and meet the minimum transfer requirements. The minimum transfer requirements are:

1. Selection for receipt of preferential consideration by the appropriate Shawnee State University Dean or group. Shawnee State University will submit a list of students deserving preferential consideration to the Marshall University School of Pharmacy prior to December 15th of each year;
2. Minimum grade of 3.4 at Shawnee State University for all courses listed in the memorandum of understanding; Application to the Marshall University School of Pharmacy through the online Pharmacy College Application Service (PharmCAS, at <http://www.pharmacas.org>);
3. Submission of the Marshall University School of Pharmacy supplemental application and all required applications fees;
4. Successful completion of an on-campus admissions interview.
5. Submission of an approved graduation plan (signed by SSU official(s)) that specifies the courses at Marshall that will be transferred back to SSU to allow the student to receive their SSU Bachelor's degree. All general education requirements must be finished prior to transfer since these courses will not back-transfer.

APPENDIX B:**PREREQUISITE CURRICULUM - SHAWNEE STATE UNIVERSITY TO MARSHALL UNIVERSITY
EQUIVALENT COURSE WORK**

Requirement	Marshall University	Shawnee State University
Calculus	MTH 229 (5)	MATH 2110 (4)
Statistics	MTH 225 (3)	STAT 1150, 1150A, or 2500 (3)
General Biology I	BSC 120 (4)	BIOL 1151 (4)
General Biology II	BSC 121 (4)	BIOL 1152 (4)
Human Anatomy	BSC 227 (4)	BIOL 3560 (4)
Human Physiology	BSC 228 (4)	BIOL 3561 (4)
Microbiology	BSC 250 (4)	BIOL 3750 (4)
Gen Chemistry I	CHM 211 (3)	CHEM 1141 (4)*
Gen Chemistry I Lab	CHM 217 (2)	—
Gen Chemistry II	CHM 212 (3)	CHEM 1142 (4)*
Gen Chemistry II Lab	CHM 218 (2)	—
Organic Chemistry I	CHM 355 (3)	CHEM 3305 (4)*
Organic Chemistry II	CHM 356 (3)	CHEM 3306 (4)*
Lab	CHM 361 (3)	—
Physics I	PHY 201 (3)	PHYS 2201 or 2211 (4)*
Lab	PHY 202 (1)	—
Physics II	PHY 203 (3)	PHYS 2202 or 2212 (4)*
Lab	PHY 204 (1)	—

* Lecture/Lab are combined at SSU

APPENDIX C:***Shawnee State University classes:***

Fall Year 1	Cr. Hrs.	Spring Year 1	Cr. Hrs.
CHEM 1141	4	CHEM 1142	4
BIOL 1151	4	BIOL 1152	4
ENGL 1101/1102	3	ENGL 1105	3
MATH 1250	3	MATH 2110*	4
UNIV1100	1		
Hours:	<u>15</u>	Hours:	<u>15</u>
Fall Year 2		Spring Year 2	
CHEM 3305*	4	CHEM 3306*	4
PHYS 2201*	4	PHYS 2202*	4
BIOL 3560	4	BIOL 3561	4
GEP	3	GEP	3
		GEP	3
Hours:	<u>15</u>	Hours:	<u>18</u>
Fall Year 3		Spring Year 3	
Upper Chem**	4	CHEM 4447	3
		STAT	3
BIOL 3750*	4	1150/1150A/2500*	
CHEM 4411	3	GEP	3
GEP	3	GEP	3
GEP	3	GEP	3
Hours:	<u>17</u>	Hours:	<u>15</u>
			<u>Total Hours:</u> <u>95</u>

* These classes are often offered over summer semester

** This is either Physical Chemistry 1 or Analytical Chemistry 1 based on every other year schedule

Marshall University classes

<u>Fall Year 4</u>		<u>Credits</u>
PHAR 501	Pharmacy Continuing Professional Development	0
PHAR 512	Pharmacy Skills 1 (clinical immunology, APhA cert, PP1 additions)	1
PHAR524	Drug information and communication	2
PHAR 531	Biopharmaceutics 1	3
PHAR 533	Intro to Pharmacy 1	3
PHAR 542	Immunology and Microbiology	4
PHAR 547	Pharmaceutical Chemistry (Biochem and Medchem combined)	4
TOTAL		17

<u>Spring Year 4</u>		<u>Credits</u>
PHAR 502	Pharmacy Continuing Professional Development	0
PHAR523	Pharmacogenomics	2
PHAR 532	Biopharmaceutics 2	3
PHAR 536	Intro to Pharmacy 2	3
PHAR 537	Pharmacokinetics (formerly pharmacometrics)	3
PHAR 538	Pharmacy Skills Lab 2	3
PHAR 544	Principles of Disease and Drug Action	4
PHAR 811	IPPE Community 1 (1 d/wk over 5 weeks)	1
TOTAL		19

Other Notes:

- The math starting point is dependent on placement, a student may need to take additional math classes or may start with calculus and forgo MATH 1250
- Two writing intensive courses are needed; students need to take one additional GEP WI course in addition to the Literature category.
- PHAR 531 (Biopharmaceutics 1) and PHAR 512 (Pharmacy Skills Lab 1) will be used in place of the upper level chemistry course not completed at SSU. 4 Credit Hours
 - In case of curricular change at Marshall University whereby PHAR 512 is no longer offered, successful completion of the first year of the Pharm. D. program will suffice. An alternative course will be selected to replace PHAR 512 by the SSU chemistry program faculty and a revised agreement will be produced if necessary.
- SSU students will submit a graduation petition for their BS CHEM (Pre-Pharmacy) degree program during their last semester at SSU.
- 1st Year Pharmacy students take 36 credit hours at Marshall University. The remaining 25 hours for SSU's BS Chemistry (pre-pharmacy track) are fulfilled by using them to satisfy the elective requirement.