MEMORANDUM OF UNDERSTANDING BETWEEN MARSHALL UNIVERSITY AND EASTERN KENTUCKY UNIVERSITY LEADING TO A BACHELOR OF SCIENCE IN CHEMISTRY FROM EASTERN KENTUCKY UNIVERSITY AND A DOCTOR OF PHARMACY DEGREE FROM MARSHALL UNIVERSITY

Marshall University School of Pharmacy (MUSOP) and Eastern Kentucky University (EKU) establish this memorandum of understanding (MOU) leading to the Bachelor of Science degree (in Chemistry) at Eastern Kentucky University and the Doctor of Pharmacy degree to be granted by Marshall University. Students who have satisfactorily completed the program of study outlined in this agreement and who meet admission requirements for the School of Pharmacy may be admitted to the Marshall University School of Pharmacy to complete the requirements for the Pharm.D. This arrangement enables the first year at Marshall University to count toward both the B.S. at EKU and toward the Pharm.D. at MUSOP, allowing a student to earn both degrees in an accelerated 7-year time frame rather than the traditional 8 years.

Marshall University and Eastern Kentucky 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 Eastern Kentucky 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 Eastern Kentucky University agree to renegotiate this agreement when changes to the B.S. or 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.

I. PROCESS

Students attending EKU who elect to pursue the Pharm.D. degree program at MUSOP will take the first three years of course work listed in Appendix A through EKU. Students will then transfer to MUSOP for the 4th year of the curriculum.

MUSOP will grant interviews to all EKU students who elect to transfer to the PharmD. program and meet the minimum transfer requirements. The minimum transfer requirements are:

- Completion of all freshmen, sophomore, and junior level course work (years 1-3) listed in Appendix A.
- 2. Selection for receipt of preferential consideration by the appropriate EKU Dean or group. EKU will submit a list of students deserving preferential consideration for admission to MUSOP prior to December 15th of each year.
- 3. Minimum GPA of 3.0 at EKU for all prerequisite courses listed in Appendix B.
- 4. Application to the Marshall University School of Pharmacy through the online Pharmacy College Application Service (PharmCAS, at http://www.pharmcas.org).
- 5. Submission of the Marshall University School of Pharmacy supplemental application and Marshall University Graduate College application and required applications fees.
- 6. Successful completion of an on-campus admissions interview.
- 7. Submission of an approved graduation plan (signed by EKU officials) that specifies the courses at Marshall that will be transferred back to EKU to allow the student to receive their B.S. All general education requirements for the B.S. must be finished prior to transferring to Marshall.

II. CURRICULUM

MUSOP and EKU agree that the courses listed in Appendix B are equivalent regarding content and student learning objectives. The successful completion of these courses is required for admission to the Pharm D program. EKU faculty and staff will advise students working toward the dual B.S. and Pharm.D. degrees to ensure their courses fulfill the requirements listed herein.

Students attending EKU who elect to pursue the Pharm.D. will complete the courses listed in Appendix A. The freshman, sophomore, and junior coursework will be

completed at EKU, and the fourth-year coursework will be completed at MUSOP. Upon admission to MUSOP and successful completion of the Year 4 coursework outlined in Appendix A, students will receive a Bachelor of Science in Chemistry from EKU. Completion of the Year 4 curriculum also fulfills the requirements for the first year of the PharmD curriculum.

III. EKU DEGREE CONFERRAL

Annually, by a date established by EKU's Academic Calendar, MUSOP will provide a report detailing the EKU transferred students who will be eligible for conferring the Bachelor of Science in Chemistry from EKU. MUSOP and EKU will collaborate to ensure that EKU transferred students are provide information and support to transfer MUSOP credits to EKU to ensure degree requirements are complete and the baccalaureate degree is awarded in a timely manner.

- IV. Both institutions will observe the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) policies, standards, and procedures and will adhere to the requirements of reporting information to these and other agencies. Failure of either institution to maintain good standing with SACSCOC must be communicated to the other institution within ten (10) days and can result in immediate termination of this Agreement.
- V. This Agreement may be terminated by either party upon sixty (60) days written notice. Arrangements shall be made to allow students already enrolled under the terms of the Agreement to complete the program in a timely manner.
- VI. This Agreement shall take effect upon the date of last signature by the authorized representatives of each Party and shall remain in effect for three (3) calendar years, unless terminated by either Party.

The terms of this agreement are hereby approved by the respective administration of each school. 3/6/25 Date Dean, School of Pharmacy Marshall University Avinandan "Avi" Mukherjee, Ph.D. Provost & Sr. Vice President Marshall University FOR EASTERN KENTUCKY UNIVERSITY Kasim Abdelhay 4/25/2025 Date Signatory Name: Karim Abdelhay, PhD Signatory Title: Interim Chair, Chemistry and Forensic Science DocuSigned by: tom Oticus 4/28/2025 Date Signatory Name: Tom Otieno, PhD Signatory Title: Dean, College of Science, Technology, Engineering, and Mathematics 5/2/2025 Date Signatory Name: Zac Lewis Signatory Title: Interim University Registrar

Signatory Name: Jennifer R. Wies, PhD

DocuSigned by:

Signature

Signatory Title: Associate Provost for Academic Affairs

5/2/2025

Date

APPENDIX A: TRANSFER PROGRAM – CURRICULUM IN CHEMISTRY FOR EASTERN KENTUCKY UNIVERSITY STUDENTS TRANSFERRING TO MARSHALL UNIVERSITY'S SCHOOL OF PHARMACY THAT WILL RESULT IN RECEIPT OF A BACCALAUREATE DEGREE IN CHEMISTRY

FRESHMAN YEAR AT EKU

FALL SEMESTER	MUSOP	PREREQ	HRS	SPRING	MUSOP PREREQ	HRS
	EQUIVAL	ENT		SEMESTER	EQUIVALENT	
GSD 101			3	CHE 112	CHM 212	3
CHE 111	CHM 211		3	CHE 112L	CHM 218	1
CHE IIIL	CHM 217		1	ENG 102	ENG 102	3
ENG 101	ENG 101		3	STA 270	MTH 225	4
MAT 234	MTH 229		4	ARTS GEN ED		3
				REQUIREMENT		
CMS 100, CMS 210,			3	PSY 200		3
OR EES 250						
TOTAL			17	TOTAL		18

SOPHOMORE YEAR AT EKU

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FALL SEMESTER	MUSOP PREREQ	HRS	SPRING	MUSOP PREREQ	HRS
	EQUIVALENT		SEMESTER	EQUIVALENT	
CHE 361	CT-IM 355	3	CHE 362	CHM 356	3
CHE 361L	CHM 355	1	CHE 362L	CHM 361	1
BIO 111	BSC 120	4	BIO 112		4
PHY 131	PHY 201	5	Social Science		3
ECO 230	Social Science	3	CHE 385		2
TOTAL		16	TOTAL		13

JUNIOR YEAR AT EKU

FALL SEMESTER	MUSOP PRER	EQ HRS	SPRING	MUSOP	HRS
	EQUIVALENT		SEMESTER	PREREQ	
				EQUIVALENT	
CHE 325		3	BIO 273 or 320	BSC 250	3-4
CHE 325L		2	BIO 308	BSC 228	3
BIO 208	BSC 227	3	BIO 308L		1
BIO 208L		1	CHE 471		3
CHE 250		3	CHE 471L		1
CHE 250L		1	CHE 432		1
CHE 430		3			
TOTAL		16	TOTAL		12-13

SENIOR YEAR AT MARSHALL (The following courses count both toward the B.S. in Chemistry at EKU and toward the PharmD at MUSOP)

FALL SEMESTER		SPRING SEMESTER	HRS
PHAR501 Pharmacy Continuing		PHAR502 Pharmacy Continuing	0
Professional Development		Professional Development	
PHAR512 Pharmacy Skills I		PHAR523 Pharmacogenomics	
PHAR524 Drug Information and		PHAR532 Biopharmaceutics II	3
Communication			
PHAR531 Biopharmaceutics I		PHAR536 Intro to Pharmacy II	
PHAR533 Intro to Pharmacy	3	PHAR537 Pharmacokinetics	3
PHAR542 Immunology and Microbiology	4	PHAR538 Skills Lab II	3
PHAR547 Pharmaceutical Biochemistry	4	PHAR544 Principles of Disease and	4
		Drug Action	
		PHAR811 IPPE Community I	1
TOTAL	17		19

APPENDIX B: PREREQUISITE CURRICULUM FOR ADMISSION INTO THE MARSHALL UNIVERSITY PHARM.D. PROGRAM

Course	Marshall	EKU Equivalent	
Calculus	MTH 229 (5)	MATH 234 (4)	
Statistics	MTH 225 (3)	STA 215 (3)	
General Biology I	BSC 120 (4)	BIO 111 (4)	
General Biology II	BSC 121 (4)	BIO 112 (4)	
Human Anatomy/ Human Physiology	BSC 227 (4) / BSC 228 (4)	BIO 208 (4)/ BIO 308 (4)	
Microbiology	BSC 250 (4)	BIO 320 (4)	
Gen Chemistry I	CHM 211 (3)	CHE 111 (3)	
Gen Chemistry I Lab	CHM 217 (2)	CHE 111L (1)	
Gen Chemistry II	CHM 212 (3)	CHE 112 (3)	
Gen Chemistry Il Lab	CHM 218 (2)	CHE 112L (1)	
Organic Chemistry I / Organic Chemistry Lab 1	CHM 355 (3)	CHE 361/361L (4)	
Organic Chemistry II	CHM 356 (3)	CHE 362 (3)	
Organic Chemistry Il Lab	CHM 361 (3)	CHE 362 L (1)	
Physics I	PHY 201 (3)	PHY 131 (5)	
Physics I Lab	PHY 202 (1)		
Social Science	3 credit hour course in the social sciences	3 credit hour course in the social sciences	