ARTICULATION AGREEMENT FOR A PROGRAM OF STUDY LEADING TO A DOCTOR OF PHARMACY DEGREE BETWEEN

MARSHALL UNIVERSITY AND DAVIS & ELKINS COLLEGE

Marshall University (Marshall), a state of West Virginia institution of higher education, whose address is One John Marshall Drive, Huntington, WV 25755; and Davis & Elkins College (Davis & Elkins), an institution of higher education whose address is 100 Campus Drive, Elkins, WV 26241 in order to facilitate the efficient transfer of students between the two institutions, hereby establish this articulated program of study leading to the Doctor of Pharmacy degree (Degree) to be granted by Marshall. 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 School of Pharmacy to complete the requirements for the Degree.

I. CURRICULUM

Marshall and Davis & Elkins agree that the courses listed in *Appendix A* are equivalent regarding content and student learning objectives. The successful completion of these courses are required for admission to the Program as outlined in this agreement.

Davis & Elkins faculty and staff will advise students working toward the Degree to ensure their previous, current, and future courses fulfill the requirements listed herein. This advising includes enrollment in those courses that are prerequisite requirements for the courses listed in *Appendix A*. Course substitutions may be available upon the approval of Marshall's Dean of the School of Pharmacy.

Students attending Davis & Elkins who elect to pursue the Program will complete the courses listed in *Appendix A* through Davis & Elkins. Upon admission to Marshall's School of Pharmacy, the required courses will be accepted by Marshall as equivalent to corresponding prepharmacy Core Course Requirements.

Upon successful completion of the Year 4 curriculum outlined below at Marshall University, students will receive a Baccalaureate in Biology, Pre-Pharmacy emphasis from Davis & Elkins College.

Students who do not complete the sequence of courses outlined in this agreement may require additional time and expense to complete the Degree.

Provided that, nothing herein shall be interpreted as granting any student automatic admission to Marshall's School of Pharmacy.

II. APPLICATION TO PROGRAM

The normal admission process to the Pharmacy Program includes a review of an applicant's performance relative to the Program's admission requirements, an on-campus interview, and an admission decision. Typically, the Program faculty will invite approximately 40 percent of applicants for an on-campus interview.

For the purpose of this agreement, Marshall will grant interviews to all Davis & Elkins students who meet the minimum admission requirements as identified by the appropriate Davis & Elkins Dean or faculty group. Davis & Elkins will submit a list of qualified students to Marshall's School of Pharmacy Office of Student Affairs prior to August 1 of each year.

Each year, Marshall will accept a minimum of two Davis & Elkins students who meet admission requirements. Marshall may grant more admissions depending upon admission decisions made for other applicants.

The minimum admission requirements are:

- 1. Minimum cumulative grade point average of 3.0 at Davis & Elkins for all courses listed in *Appendix A*;
- 2. Completed application for "Early Decision" by the stated deadline through the online Pharmacy College Application Service (PharmCAS, at http://www.pharmcas.org);
- 3. Submission of the Marshall's School of Pharmacy supplemental application and all required application fees by the date of on-campus interview;
- 4. Successful completion of an on-campus admissions interview.
- 5. Student shall be responsible for payment of all fees associated with admission to the Program, including but not limited to the application fee.

III. TERMS OF THE AGREEMENT

This articulation agreement supersedes all currently existing articulation agreements between Marshall and Davis & Elkins regarding this Program. Students who started their coursework during a previous agreement may proceed as outlined in that agreement with the expectation that all students will complete the course work by the end of the 2019-2020 academic year.

Marshall and Davis & Elkins agree to monitor and support the provisions of this agreement to ensure program consistency and quality, and transferability of the benefit of the students of both institutions. Marshall and Davis & Elkins agree to coordinate changes in the course content or requirements for any courses listed in the articulation agreement in order to ensure continued comparability between the courses offered on each campus.

Both institutions will maintain their accreditation with the regional accrediting agency overseeing each institutions' operations. Marshall shall maintain its accreditation with the Accreditation Council for Pharmacy Education.

Interpretation of this agreement will be made within the laws of the State of West Virginia.

Marshall and Davis & Elkins agree to renegotiate this agreement as necessary due to changes in curriculum or graduation requirements implemented by either institution. This process will be the responsibility of the appropriate deans at both institutions. This agreement may be terminated upon thirty (30) days written notice to the other party: provided that the students currently pursuing a degree shall be permitted to complete the degree.

Students pursuing the Degree through the articulation agreement will be bound by the curriculum requirements in effect at the time they are officially accepted into the Pharmacy program. The attached curriculum requirements will be in effect until officially changed and agreed upon by both institutions.

The terms of this agreement are hereby approved on October 1, 2019 by the respective administration of the two schools.

Jerome A. Gilbert, Ph.D., President

Marshall University

Jaime R. Taylor, Ph.D., Senior Vice President Academic Affairs and Provost

Marshall University

Gayle A. Brazeau, Ph.D., Dean School of Pharmacy

Marshall University

Chris Wood, President

Davis & Elkins College

Robert Phillips, Ph.D., Provost and Vice President for Academic Affairs

Davis & Elkins College

Michelle Mabry, Ph.D., Chair Biology and Environmental Science Department

Davis & Elkins College

APPENDIX A COURSE EQUIVALENCIES FOR SCHOOL OF PHARMACY DOCTOR OF PHARMACY DEGREE

CORE COURSE REQUIREMENT	Marshall Course	DAVIS & ELKINS COLLEGE EQUIVALENT	
Biology: <i>Principles of Biology</i> w/lab	BSC 120	BIOL 101 (4)	
Biology: Principles Biology w/lab	BSC 121	BIOL 102 (4)	
Biology: Human Anatomy	BSC 227	BIOL 107 (4)	
Biology: Human Physiology	BSC 228	BIOL 108 (4)	
Biology: Microbiology and Human Disease	BSC 250	BIOL 208A	
Chemistry: <i>Principles Chemistry I</i> w/lab	CHEM 211 and 217	CHEM 120 and 121	
Chemistry: Principles Chemistry II w/lab	CHEM 212 and 218	CHEM 122 and 123	
Chemistry: Organic Chemistry I	CHEM 355	CHEM 205 and 206	
Chemistry: Organic Chemistry II w/lab	CHEM 356 and 361	CHEM 207 and 208	
English: Beginning Composition	ENG 101	ENGL 101A	
English: Advanced Composition	ENG 201	ENGL 102A	
Mathematics: Calculus with Analytic Geometry I	MTH 229	MATH 196	
Mathematics: Statistics	STA 225	MATH 180	
Physics: College Physics 1 w/lab	PHY 201/201	PHYS 221 or 251	

ADDITIONAL CURRICULUM REQUIREMENTS FOR D&E STUDENTS MATRICULATING TO MARSHALL UNIVERSITY'S SCHOOL OF PHARMACY THAT WILL RESULT IN RECEIPT OF A BACCALAUREATE IN BIOLOGY, PRE-PHARMACY EMPHASIS FROM DAVIS & ELKINS COLLEGE.

BIOLOGY (HRS)

BIOL 205 Genetics (4)

BIOL 297 Biology Forum (1) BIOL 302 Cell and Molecular Biology (4)

BIOL 305 Evolution (4)

BIOL 335 Current Topics in Biology (1)

PHYS 222 or 252 Physics II with Lab (4)

GENERAL EDUCATION (HRS)

GES 105 First-Year Seminar (3)

COMM 100 level course (3)

History (3)

Literature (3) Religion or Philosophy (3)

Creative Arts (3)

Social Sciences (6)

Health and Wellness (2)

Department of Biology & Environmental Science BS Biology, Marshall University Pre-Pharmacy Program Sample schedule

Year 1 (D&E)

Fall		Spring	
Course	Credits	Course	Credits
BIOL 101 Principles of Biology I	4	BIOL 102 Principles of Biology II	4
MATH 195 Precalculus	4	MATH 196 Calculus	4
GES 105 First Year Seminar	3	CHEM 122 Fundamentals of	3
		Chemistry II	
CHEM 120 Fundamentals of	3	CHEM 123 Chem Lab Principles II	1
Chemistry I		^	
CHEM 121 Chem Lab Principles I	1	ENGL 101A College Writing I	3
SPSC 102 Wellness Education	1	SPSC 103 Fitness Activity	1
Total	16	Total	16

Year 2 (D&E)

Fall		Spring	
Course	Credits	Course	Credits
CHEM 205 Organic Chemistry I	3	CHEM 207 Organic Chemistry II	3
CHEM 206 Organic Techniques I	1	CHEM 208 Organic Techniques II	1
BIOL 205 Genetics	4	BIOL 297 Biology Forum	1
BIOL 208A Microbiology (even	4	BIOL 302 Cell and Molecular	4
fall semesters)		Biology (odd spring semesters)	
MATH 180 Statistics	3	ENGL 102A College Writing II	3
GenEd (COMM)	3	GenEd (HIST)	3
		GenEd (Art)	3
Total	18	Total	18

Year 3 (D&E)

Fall		Spring	
Course	Credits	Course	Credits
PHYS 221 OR 251 Physics	4	PHYS 222 OR 252 Physics	4
BIOL 107 Human Anatomy	4	BIOL 335 Current Topics	1
GenEd (Lit)	3	BIOL 305 Evolution (even spring semesters)	4
GenEd (Relg or Phil)	3	BIOL 108 Human Physiology	4
Gen Ed (Social Science I)	3	GenEd (Social Science II)	3
Total	17	Total	16

Total hours at D&E = 101

Year 4 (Marshall Univ. Pharm.D.)

Fall		Spring	
Course	Credits	Course	Credits
PHAR 541 Intro to Pharmacy I**	4	PHAR 543 Intro to Pharmacy II**	4
PHAR 542 Immunology and	4	PHAR 544 Principles of Disease	4
Microbiology*		and Drug Action*	
PHAR 546 Pharm Biochemistry	4	PHAR 532 Biopharmaceutics II**	3
PHAR 511 Clinical Immunology	1	PHAR 521 Integrated Lab I	2
PHAR 531 Biopharmaceutics I**	3	PHAR 545 Therapeutics 1 – OTC	4
PHAR 522 Intro to MedChem	2	PHAR 811 IPPE Community 1*	1
		PHAR 819 IPPE Longitudinal	
Total	18	Total	18

Notes:

*PHAR 542 and PHAR 544 count as BIOL electives for the B.S. Biology degree at D&E. PHAR 811 counts as BIOL 498 for the Capstone sequence. Students would be invited to participate in the Capstone events that semester. This gives a total of 39 hrs for the BS Biology degree

** PHAR 541, PHAR 543, PHAR 531, and PHAR 532 count as 14 hours of general electives to bring the total hours needed for graduation with the BS Biology degree to 124. Students would receive their bachelor's degree at the end of the spring semester their first year in the PharmD program and would be eligible to walk in that year's ceremony.

Students attending D&E who elect to pursue the Pharm.D. degree program at Marshall University will have completed all courses listed prior to matriculation within the pharmacy program through D&E or have received transfer credit for courses completed at peer institutions. Upon transfer to Marshall University School of Pharmacy (MUSOP), the listed courses will be accepted by Marshall University as meeting the required pre-pharmacy course requirement indicated for that course.