ARTICULATION AGREEMENT BETWEEN

and

for a

Dual-Degree Program

Bachelor of Science Degree in Chemistry (FSU)

and

Doctor of Pharmacy Degree (WVUSoP)

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Articulation Agreement between
West Virginia University School of Pharmacy and Frostburg State University
Dual-Degree Program for a Bachelor of Science Degree in Chemistry (FSU) and Doctor of Pharmacy Degree (WVUSoP)

1. INTRODUCTION AND OBJECTIVES

The West Virginia University School of Pharmacy (WVUSoP) and Frostburg State University (FSU) agree to provide a cooperative undergraduate/professional program leading to a Bachelor's of Science (BS) degree from FSU and a Doctor of Pharmacy (PharmD) degree from WVUSoP.

Such a cooperative program is being created and sustained in an effort to fulfill the following mutual objectives:

a. To attract qualified students to FSU and WVUSoP.
b. To cooperatively provide a qualified student the opportunity to complete the baccalaureate degree and the PharmD degree.
c. To facilitate the transition of students from FSU to WVUSoP.
d. To provide advisement for students at FSU who intend to pursue professional study at WVUSoP.
e. To encourage academic and administrative coordination between the institutions and the exchange of evaluative information on outcomes of the program with the goal of continual improvement.

2. OVERVIEW

To offer the students at FSU the opportunity to pursue a BS in Chemistry from their home institution and a PharmD degree from WVUSoP. The dual-degree program will require the FSU students to spend their first three years at FSU (Appendix 1) and their last four years at WVUSoP. The FSU students will earn their BS degree in Chemistry from FSU after they have completed the necessary courses in their first professional year of the Doctor of Pharmacy program, which corresponds to the fourth year of the dual-degree BS in Chemistry program. The PharmD degree will be awarded after successful completion of all the degree requirements in the professional program. The parties to this collaboration will offer the appropriate combination of courses to ensure that a student can complete the requirements for the BS in Chemistry from FSU and the WVUSoP PharmD degree.

3. ADMISSIONS CRITERIA

In order to participate in this program, students must apply and be admitted to the WVUSoP. Students are subject to all applicable admissions and graduation requirements. The admissions criteria and general information regarding the admissions process is summarized below. Additional information can be found here: https://pharmacy.wvu.edu/student-services/pharmd-admissions/

General Information

a. Applications to WVUSoP must be submitted through PharmCAS at https://www.pharmcas.org/node/32/webform/submission/93. No supplemental application is required.
b. Admission to the program is competitive and granted on a rolling basis for applications typically received no later than the published application date of the matriculation year. Please check the WVUSoP website for more information.

Dual Degree Criteria

Consideration for admission to WVUSoP will be based on the applicant's potential for academic and professional achievement and an assessment of written and verbal communication skills, critical thinking skills, integrity, dedication, motivation, character and maturity. To be considered for admission to WVUSoP under the terms of this agreement, a prospective student must:

a. Be enrolled at FSU in the third year of the Chemistry program. Students should plan to apply to the Doctor of Pharmacy Program in the fall of their third year at FSU.
b. Earn a grade of C or better in each prerequisite course. All pre-pharmacy coursework must be completed by **the end of the summer semester** prior to matriculation.
c. Earn a grade point average (4.0 scale) as required for admissions to the WVUSoP PharmD program (both science/math and cumulative). The GPAs are calculated based on the prerequisite course work listed in Appendix I.
d. Submit an application to PharmCAS (https://www.pharmcas.org/node/32/webform/submission/93).
e. Submit all transcripts to PharmCAS. Academic performance will be only be evaluated for prerequisite coursework undertaken by the students, but transcripts for all college coursework must be submitted to PharmCAS.
f. Submit a required minimum of three recommendations letters directly to PharmCAS.
g. Submit a personal statement directly to PharmCAS.
h. Complete the on-campus interview with members of the Faculty and of the Admissions Committee (by invitation only).
i. Provide all required documents including transcripts, medical forms, and other pre-matriculation requirements by August 1st of matriculation year.
j. Satisfy the Technical Standards for admission to the program as listed on the website.

4. ADMISSIONS PROCEDURE

Counseling and admissions of students entering the PharmD program through this Articulation Agreement will be through the following procedures and policies:

a. Application for undergraduate admissions will be made to FSU, where the prospective student will be subject to the admission requirements of FSU.
b. FSU is responsible for informing students, who are applying for admission to the PharmD program through this Articulation Agreement, of the admission criteria as described above.
c. Through academic advising at FSU, students will be made aware of the courses available at FSU that will be used to meet degree requirements for the BS in Chemistry and meet the prerequisites for admission into the.
d. Students should express interest in the degree program at the time of the student's admission to FSU or early enough in the student's undergraduate academic program at FSU to permit the student to complete as many of the prerequisite courses for admission to the WVU PharmD Program.
e. Successfully complete the requirements of FSU's Chemistry program

5. REQUIREMENTS FOR DUAL-DEGREE WHILE AT FSU AND FOR THE BS DEGREE

a. The student must complete a minimum of 98 semester credit hours and general education requirements at FSU.
b. The student must submit all of the required documents for admission to the PharmD program.
c. The student must complete all of the prerequisite courses for the PharmD program (see Appendix II).
d. In order for the BS in Chemistry at FSU to be awarded, students must successfully complete all of the specified required courses in the WVUSOP Pharmacy curriculum (see Appendix II). Upon completion of P1 coursework, the student must request an official transcript from the WVU Office of the University Registrar https://registrar.wvu.edu/.
e. The student must satisfy all other graduation requirements according to the academic policies set by FSU.

6. REQUIREMENTS FOR DUAL-DEGREE WHILE AT WVUSoP AND FOR THE PHARMD DEGREE

a. The student must complete all of the specified first year professional courses in the PharmD program to satisfy the requirements for the BS in Chemistry degree at FSU.
b. The student must satisfy all other graduation requirements according to the academic policies set by the WVUSoP to earn the PharmD degree.

7. POLICIES AND REGULATIONS

Students will be required to comply with the rules and regulations governing academic performance, grade appeals, and student behavior as established and published by FSU and WVUSoP respectively, depending on the institution at which the student is currently enrolled or where the applicable event/conduct occurred.

8. TUITION AND FEES

Students involved in this collaboration will be responsible for tuition and fees in accordance with the policies established by the institution in which they are enrolled.

9. RESPONSIBILITIES OF BOTH PARTIES

a. FSU shall:

i. Recruit qualified students who show promise for the dual-degree program
ii. Identify a program advisor.
iii. Counsel and screen applicants for admission to FSU during the first three years of undergraduate coursework.
iv. Assure that FSU students have met the graduation requirements of FSU.
v. Work with WVUSOP on promotional materials about the dual-degree program.
vi. Ensure the Chemistry program maintains compliance with all of the accreditation/regulatory standards.

b. WVUSoP shall:

i. Work closely with the FSU program advisor to provide support for interested FSU students each year.
ii. Grant the PharmD degree to students who have successfully completed the requirements of the PharmD program.
iii. Provide to FSU an annual list of students who entered the PharmD program via this Articulation Agreement and successfully completed the program.
iv. Provide regular updates about curricular changes as they relate to the PharmD program.
v. Ensure the PharmD program maintains compliance with all of the accreditation standards mandated by the Accreditation Council for Pharmacy Education.

10. MUTUAL TERMS AND CONDITIONS

a. Term of Agreement. This agreement shall be reviewed in the spring after the first cohort has been accepted in the PharmD program and every two years thereafter. The Agreement will be in effect for a period of five years from the date it is signed by all necessary parties, and may be renewed upon mutual agreement through a renewed agreement.
b. Termination of Agreement. WVUSoP or FSU may terminate this Agreement for any reason with ninety (90) days advanced written notice. Should either party terminate this Agreement prior to the completion of an academic semester, all students enrolled at that time may continue their educational experience until it would have been concluded absent the termination.
c. Modifications and Amendments of Agreement. This Agreement shall only be modified in writing with the same formality as the original Agreement. If appendices require updates, this Agreement may be amended by written agreement of the parties made subsequent to this agreement. To be effective, such amendments must make explicit reference to this agreement and must be signed by authorities with signature authority for the respective institutions.
d. Nondiscrimination. The parties agree to continue their respective policies of nondiscrimination based on Title VI of the Civil Rights Act of 1964 in regard to sex, age, race, color, creed, veteran status, gender identify, and national origin, Title IX of the Education Amendments of 1972 and other applicable laws, as well as the provisions of the Americans with Disabilities Act.
e. Assignment. Neither party shall assign, sell, or otherwise transfer this Agreement without prior written consent of the other. Any such purported assignment, sale or transfer shall be void.

11. DESIGNATED REPRESENTATIVES

We, the undersigned, agree to the articulation of courses and requirements for the BS degree in Chemistry at Frostburg State University and the Doctor of Pharmacy degree offered by the West Virginia University School of Pharmacy.

For West Virginia University School of Pharmacy

Signature Date

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For Frostburg State University

3/4/24 Boyce C Williams 2/14

Signature Date

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APPENDIX I: FSU Curriculum Overview (BS Chemistry)

Final year of BS degree is completed in the P1 Year at WVUSoP Appendix II

FSU Curriculum	Fall Credits	Spring Credits
*CHEM 201 – General Chemistry I	4	
*BIOL 149/159 – General Biology	4	
*ENGL 101/111 – First Year Composition	3	
*MATH 236 – Calculus I	4	
ORIE 101 – Intro. To Higher Education	1	
*CHEM 202 – General Chemistry II	4	
*BIOL 304 – Microbiology	4	
MATH 237 – Calculus II	4	
*ECON 200 or 201/211 – Economics	3	
FSU Year 2		
*CHEM 311 – Organic Chemistry I	3	
*CHEM 312 – Organic Chemistry Lab I	1	
BIOL 310 – Cell Biology	4	
*BIOL 321 – Anatomy & Physiology I	4	
IDIS 150 – FSU Colloquium	3	
CHEM 304 – Computational Techniques	2	
*CHEM 321 – Organic Chemistry II	3	
*CHEM 322 – Organic Chemistry Lab II	1	
*BIOL 322 – Anatomy & Physiology II	4	
#GEP Fine & Performing Arts	3	
#GEP Humanities	3	
#GEP Social Science	3	
FSU Year 3		
CHEM 320 – Quantitative Analytical Chemistry	4	
CHEM 455 – Biochemistry I	3	
*MATH 109/110 or 280 - Statistics	3	
*PHYS 215 or 261 – Physics I	4	
GEP Identity and Difference	3	
CHEM 305 – Research Methods	3	
*CMST 102/112 or 122- Communication	3	
*ENGL 338/339- Advanced Writing	3	
PHYS 216/262 – Physics II	4	
#GEP Humanities	3	
Total Credits	50	48

WVUSoP does not require Physics. However, if it is a requirement for the FSU Chemistry degree, it must be completed.

Appendix II: 1st Year PharmD Curriculum at West Virginia University School of Pharmacy

For purposes of articulation agreement with Frostburg State University

Year 1

Fall **Spring**

Course	Credits	Course	Credits
PALM 301: Principles of Human Anatomy	3	PHAR 810: Community Pharmacy Practice	2
PSIO 541: Integrative Physiology	4	PHAR 811: Foundational Pharmacy Skills	1
PHAR 800: Introduction to Pharmacy	4	PHAR 812: Drug Chemistry and Biotechnology	3
PHAR 801: Drug Delivery	5	PHAR 813: Biopharmaceutics and Pharmacogenomics	4
PHAR 802: Preparation of Pharmaceutical Products	1	PHAR 814: Biochemical Pharmacology	4
PHAR 807: Pharmacy Calculations	1	PHAR 815: Self-Care	3
PHAR 703: Pharmacy Practice Experience 1	1	PHAR 817: Principles of Immunology and Microbiology	2
		PHAR 710: Pharmacy Practice Experience 2	1
Total Credits	***19***	***Total Credits***	***20***

Courses and Course Catalog Descriptions:

Fall Year 1 Curriculum:

PALM 301. Principles of Human Anatomy. 3,4 Hours.
PR: Admission to WVU's dental hygiene, nursing, or pharmacy program or consent. Lectures and demonstrations on the gross and microscopic anatomy of the human body including development. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

PSIO 541. Integrative Physiology. 4 Hours.
PR: First professional year standing in the School of Pharmacy. A systematic examination of the homeostatic functions of the human body with emphasis on the physicochemical mechanisms involved. Pathophysiology and clinical correlations related to pharmacy are introduced in relation to normal physiology.

PHAR 800. Introduction to Pharmacy. 4 Hours.
PR: First professional year standing or consent. Introduces students to the profession and practice of pharmacy. Students will gain an understanding of the history of pharmacy, the role of pharmacists in the US healthcare system, and the foundations of pharmacy law. Students develop hands-on skills in patient communication and drug information retrieval.

PHAR 801. Drug Delivery. 5 Hours.

An introduction to the concepts and techniques involved in the design and evaluation of pharmaceutical dosage forms, principles of physical pharmacy and drug delivery, and their applications in patient care.

PHAR 802. Preparation of Pharmaceutical Products. 1 Hour.
Preparation of sterile and non-sterile dosage forms. Students will apply the principles of pharmaceutics to the preparation of pharmaceutical products.

PHAR 807. Pharmacy Calculations. 1 Hour.
Gain experience in pharmaceutical calculations that reflect activities in a variety of practice settings.

PHAR 703. Pharmacy Practice Experience 1. 1 Hour.
PR: First professional year standing or consent. Introduces student to the practice of pharmacy with a focus on career exploration. Pharmacy Practice Experience (PPE) 1 is the first course in a sequence that introduces students to the roles of pharmacists in a variety of practice settings. Interprofessional education (IPE) is introduced and emphasized throughout the course.

Spring Year 1 Curriculum:

PHAR 810. Community Pharmacy Practice. 2 Hours.
PR: First professional year standing or consent. Focuses on the various roles of a pharmacist including the prescription dispensing and medication management processes in the community pharmacy setting. Legal aspects of community pharmacy practice are also discussed.

PHAR 811. Foundational Pharmacy Skills. 1 Hour.
PR: First professional year standing or consent. Provide students with foundational skills necessary for the provision of patient care including physical assessment, point of care testing, and oral and written communication. Many skills learned during this course will be further strengthened throughout pharmacy school.

PHAR 812. Drug Chemistry and Biotechnology. 3 Hours.
PR: First professional year standing or consent. Introduces principles of chemical stability and chemical properties as they relate to drugs and to the basic metabolic processes observed for drug molecules. Biotechnology will focus on pharmaceutical applications of cell and molecular biotechnology.

PHAR 813. Biopharmaceutics and Pharmacogenomics. 4 Hours.
PR: First professional year standing or consent. Develops an understanding of fundamental principles of biopharmaceutics and pharmacogenomics.

PHAR 814. Biochemical Pharmacology. 4 Hours.
PR: First professional year standing or consent. Provides a basis for understanding the biochemical and molecular mechanisms by which drugs and the body interact. This course will use drug classes to introduce foundational concepts of drug action and the application of pharmacological tools to better understand how drugs work in the body.

PHAR 815. Self-Care. 3 Hours.
PR: First professional year standing or consent. Provides an introduction to nonprescription medications and the application to patient care. Learners will assess the patient, make

appropriate recommendations, and educate the patient on self-care treatment options for commonly encountered disease states and patient complaints.

PHAR 817. Principles of Immunology and Microbiology. 2 Hours.
PR: First professional year standing or consent. Introduces scientific principles of immunology as well as introduces students to the pharmacist's role as vaccination advocate, and provides the knowledge and skills required to safely administer vaccines. Lastly, it provides an introduction to microbiology and mechanisms of action of antibiotics.

PHAR 710. Pharmacy Practice Experience 2. 1 Hour.
PR: PHAR 703 or consent. Introduces student to the practice of pharmacy with a focus on career exploration. Pharmacy Practice Experience (PPE) 2 is the second course in a sequence that introduces students to the roles of pharmacists in a variety of practice settings. Interprofessional education (IPE) is introduced and emphasized throughout the course.