

**MEMORANDUM OF UNDERSTANDING BETWEEN
THE UNIVERSITY OF MARYLAND EASTERN SHORE AND
THE COLLEGE OF SOUTHERN MARYLAND**

Cooperative Agreement to Award the
Associate of Science Degree in Pre-Professional Health Science (Pharmacy
Track) and
The Doctor of Pharmacy Degree

1. INTRODUCTION AND OBJECTIVES

The University of Maryland Eastern Shore (UMES) and College of Southern Maryland (CSM) agree to provide a cooperative undergraduate/professional program leading to an Associate of Science degree in Pre-Professional Health Science (Pharmacy Track) from CSM and a Doctor of Pharmacy (Pharm.D.) degree from UMES. This agreement serves as an updated Agreement for the original Agreement finalized in May 2018.

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

- a. To attract qualified students to UMES and CSM.
- b. To cooperatively provide a qualified student the opportunity to complete the Associate of Science degree in Pre-Professional Health Science and the Pharm.D. degree in five years.
- c. To facilitate the transition of students from CSM to UMES.
- d. To provide advisement for students at CSM who intend to pursue professional study at UMES.
- 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 CSM the opportunity to pursue an Associate of Science (A.S.) in Pre-Professional Health Science (Pharmacy Track) from their home institution and a Pharm.D. degree from UMES in five years. The dual-degree program will require the CSM students to spend their first two years at CSM and their last three years at UMES. The CSM students will earn their A.S. degree in Pre-Professional Health Science (Pharmacy Track) from CSM after they have completed the two years of required coursework. The Pharm.D. degree will be awarded after successful completion of all of 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 A.S. in Pre-Professional Health Science (Pharmacy Track) from CSM and the Pharm.D. from UMES in five years.

3. **ADMISSIONS PROCEDURE**

Consideration for admission will be based on the applicant's potential for academic and professional achievement as well as an assessment of written and verbal communication skills, critical thinking skills, integrity, dedication, motivation, character, and maturity.

Counseling and admissions of students entering the Pharm.D. program through this Memorandum of Understanding will be through the following procedures and policies:

- a. Application for undergraduate admissions will be made to CSM, where the prospective student will be subject to admission requirements of CSM.
- b. CSM is responsible for informing students, who are applying for admission to the Pharm.D. program at UMES through this Memorandum of Understanding, of the admission criteria as described in section 4.
- c. CSM will provide a copy of the CSM-UMES 2+3 Curriculum overview which lists the courses required to satisfy both degree requirements (Appendix I).
 - i. Through academic advising at CSM, students will be made aware of the courses available at CSM that will be used to meet degree requirements and prerequisites for the 2+3 program.
 - ii. A prospective, accepted, or matriculated CSM student may indicate the desire to follow the 2+3 program:
 - a. At the time of the student's admission to CSM or
 - b. Early enough in the student's undergraduate program at CSM to permit the student to complete all of the prerequisite courses for admission to the 2+3 Program at UMES by the end spring semester prior to intended matriculation into the Doctor of Pharmacy program at UMES.
 - iii. UMES will guarantee admission for a minimum of three CSM students annually into its Doctor of Pharmacy program via the 2+3 pathway provided they:
 - a. Successfully complete the requirements of CSM's Associate of Science degree in Pre-Professional Health Science (Pharmacy Track) and;
 - b. Maintain a minimum 3.3 GPA and;
 - c. Obtain a score of at least 50 on the Pharmacy College Admission Test (PCAT) and;
 - d. Have a successful interview.

4. REQUIREMENTS FOR STUDENTS WHILE AT CSM FOR THE A.S. IN PRE-PROFESSIONAL HEALTH SCIENCE (PHARMACY TRACK)

- a. Students should apply to apply for the Doctor of Pharmacy program in the fall of their second year at CSM.
- b. Participate in the PharmCAS Early Decision program.
- c. Submit an application to PharmCAS (www.PharmCas.org)
- d. Submit a personal statement directly to PharmCAS.
- e. Submit a required minimum of three recommendations letters directly to PharmCAS.
- f. Submit all transcripts to PharmCAS. Academic performance will only be evaluated for prerequisite course work undertaken by the students, but transcripts for all college coursework must be submitted to PharmCAS.
- g. Complete the UMESSOP supplemental application.
- h. Earn a grade of C (2.0) or better in each prerequisite course. All pre-pharmacy coursework must be completed by the end of the spring semester annually prior to matriculation.
- i. Earn a minimum grade point average of 3.3 (both science/math and cumulative) on a 4.0 scale. The GPAs are calculated based on the prerequisite course work listed in Appendix I.
- j. If the Pharmacy College Admissions Test (PCAT) exam is required, obtain at least a score of 50.
- k. Provide all required documents including transcripts, medical forms, and other pre-matriculation requirements.
- l. Satisfy the Technical Standards for admission to the program as listed on the UMESSOP's website.
- m. Complete the UMESSOP's on-campus personal interview with members of the Faculty and of the Admissions Committee (by invitation only).

5. REQUIREMENTS FOR STUDENTS WHILE AT UMES FOR THE PHARM.D. DEGREE

- a. The student must successfully complete all of the courses (164.5 credits) in the professional program to be awarded the Pharm.D. degree (see Appendix I).
- b. The student must satisfy all other graduation requirements according to the academic policies set by UMES.

6. 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 CSM and UMES, respectively, depending on the institution at which the student is currently enrolled or where the applicable event/conduct occurred.

7. **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.

8. **RESPONSIBILITIES OF BOTH PARTIES**

a. CSM shall:

- i. Recruit highly qualified students who show promise in becoming excellent pharmacy professionals.
- ii. Identify a 2+3 program advisor.
- iii. Counsel and screen applicants for admission to CSM during the years of undergraduate course work.
- iv. Assure that CSM students have met the graduation requirements of CSM.
- v. Work with UMES on promotional materials about the 2+3 Program.
- vi. Provide to UMES a list of all potential applicants to the 2+3 Program no later than July 1st of each academic year.
- vii. Provide regular updates about curricular changes as they relate to the Pre-Professional Health Science (Pharmacy Track) program.
- viii. Ensure the Pre-Professional Health Science (Pharmacy Track) program maintains compliance with all of the accreditation standards mandated by the Middle States Commission on Higher Education

b. UMES shall:

- i. Work closely with the CSM 2+3 program advisor to advise the cohort of CSM students each year.
- ii. Grant the Pharm.D. degree to students who have successfully completed the 2+3 Program.
- iii. Provide to CSM an annual list of students who entered the Pharm.D. program via this MOU and successfully completed the program.
- iv. Provide regular updates about curricular changes as they relate to the Pharm.D. program.

- v. Ensure the Pharm.D. program maintains compliance with all of the accreditation standards mandated by the Accreditation Council for Pharmacy Education

9. **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 Pharm.D. 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. UMES and CSM may terminate this Agreement for any reason with ninety (90) days advanced written notice. Should UMES and CSM 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 identity, 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.

10. **DESIGNATED REPRESENTATIVES**

The following are the designated representatives for each institution for purposes of implementing this agreement and for any notices required to be given under this agreement.

For the University of Maryland Eastern Shore:

Sean Vasaitis, Ph.D.
Interim Dean, School of Pharmacy and Health Professions
University of Maryland Eastern Shore
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For the College of Southern Maryland:

Jacqui Rogers-Frere, M.A.
Coordinator of Transfer and Articulation
College of Southern Maryland
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MEMORANDUM OF UNDERSTANDING

We, the undersigned, agree to the requirements for the A.S. degree in Pre-Professional Health Science (Pharmacy Track) at the College of Southern Maryland and Doctor of Pharmacy degree offered by the University of Maryland Eastern Shore, as indicated on the attached.

 04 / 01 / 2022

Dr. Heidi M. Anderson Date
President
University of Maryland Eastern Shore
Princess Anne, MD 21853

 04 / 04 / 2022

Dr. Maureen Murphy Date
President
College of Southern Maryland
La Plata, MD 20646

 04 / 01 / 2022

Dr. Nancy S. Niemi Date
Provost & Vice President for Academic Affairs
University of Maryland Eastern Shore
Princess Anne, MD 21853

 04 / 04 / 2022

Dr. Rodney Redmond Date
Provost & Vice President of Learning
College of Southern Maryland
La Plata, MD 20646

APPENDIX 1: CSM AND UMES 2+3 CURRICULUM OVERVIEW

Semester 1			
College of Southern Maryland	Credits	Gen Ed	Minimum Grade
ENG-1010: Composition and Rhetoric	3	E	C
BIO-1020/L or BIO-1060/L	4	S	C
CHE-1200/L: General Chemistry I and Lab	4	S	C
MTH-1200: Calculus I and Analytic Geometry	4	M	C

Semester 2			
College of Southern Maryland	Credits	Gen Ed	Minimum Grade
BIO-2170: Human Anatomy & Physiology I (previously BIO-2070 & BIO-2070L)	4	S	C
CHE-1210: General Chemistry II and Lab	4	S	C
SOC-1010: Introduction to Sociology	3	B	C
MTH-1015: Introduction to Statistics (previously MTH-2300)	3	M	C
Humanities (preferred ENG-1020)	3	H	C

Semester 3			
College of Southern Maryland	Credits	Gen Ed	Minimum Grade
CHE-2200/L: Organic Chemistry I and Lab	4	S	C
BIO-2080/L: Integrated Human Anatomy and Physiology II and Lab	4	S	C
PSY-1010: General Psychology	3	B	C
COM-1010: Basic Principles of Speech Communication (preferred)	3	H	C

Semester 4			
College of Southern Maryland	Credits	Gen Ed	Minimum Grade
BIO-2010/L: Microbiology and Lab	4	S	C
ECN-2020: Principles of Microeconomics	3	B	C
CHE-2210/L: Organic Chemistry II and Lab	4	S	C
Humanities	3	H	C

Additional Required Coursework			
College of Southern Maryland	Credits	Gen Ed	Minimum Grade
PHY-1110: Fundamentals of Physics I with Lab (previously PHY-1010 & PHY-1010L)	4	S	C
Humanities or Social and Behavioral Science course	3	H or B	C

APPENDIX 1 (CONTINUED): CSM AND UMES 2+3 CURRICULUM OVERVIEW

YEAR 1, FALL SEMESTER	
University of Maryland Eastern Shore	Credits
PHAR-530: Pharmaceutics and Biopharmaceutics	4.5
PHAR-501: Basics of Drug Information and Introduction to Pharmacy Profession	1.5
PHAR-510: Fundamentals of Drug Action and Metabolism	3
PHAR-511: Genetic Controls of Cell Function, Cell Reproduction and Protein Synthesis	2.5
PHAR-512: Metabolism of Carbohydrates, Lipids, and Amino Acids	4
PHAR-523: Endocrine System: Pharmacology and Medicinal Chemistry	1.5
PHAR-540: Pharmacy Administration I – Health Care Delivery	2
PHAR-550: Pharmaceutical Calculations	2
PHAR-542: Concepts in Diversity and Communication for the Pharmacist	3
PHAR-561: Professional Development I	1
PHAR-571: IPPE I	5

YEAR 1, SPRING/SUMMER SEMESTER	
University of Maryland Eastern Shore	Credits
PHAR-520: Principles of Neurobiology and Neuropharmacology	1
PHAR-525: Neuropharmacology and Medicinal Chemistry	3.5
PHAR-521: Cardiovascular & Renal: Pharmacology and Medicinal Chemistry	2
PHAR-522: Gastrointestinal & Genitourinary: Pharmacology and Medicinal Chemistry	1
PHAR-513: Hematology and Immunology	4
PHAR-531: Pharmacokinetics	3.5
PHAR-541: Pharmacy Law	1.5
PHAR-514: Biostatistics and Clinical Trial Design	1.5
PHAR-543: Public Health for Pharmacists	2
PHAR-544: Direct Patient Care in Pharmacy Practice	3
PHAR-562: Professional Development II	1
PHAR-572: IPPE II	5

YEAR 2, FALL SEMESTER	
University of Maryland Eastern Shore	Credits
PHAR-640: Pharmacy Administration II: Management	3
PHAR-610: PTMM: Principles of Pharmacotherapy	2
PHAR-614: PTMM: Pulmonology and Ophthalmology	2
PHAR-611: PTMM: Fluids, Electrolytes and Nephrology	2
PHAR-612: PTMM: Cardiology	5.5
PHAR-630: Sterile Products	1.5
PHAR-641: Practice of Drug Information and Literature Evaluation	2
PHAR-622: PTMM: Endocrinology and Urology	3
PHAR-661: Professional Development III	1
PHAR-671: IPPE III	2
PHAR-624: Integration of Pharmacy Practice I	2.5

PHAR-650: Top 200 Drugs	1
PHAR-609: Therapeutics of Self-Care and Over the Counter Products	2

YEAR 2, SPRING/SUMMER SEMESTER	
University of Maryland Eastern Shore	Credits
PHAR-619: PTMM: Neurology	3
PHAR-618: PTMM: Psychiatry	2.5
PHAR-615: PTMM: Gastroenterology	3
PHAR-613: PTMM: Immunology and Rheumatology	3
PHAR-616: PTMM: Infectious Disease I	3
PHAR-617: PTMM: Infectious Disease II	3
PHAR-620: PTMM: Hematology/Oncology	3
PHAR-660: Scientific Writing	1
PHAR-625: Integration of Pharmacy Practice II	2.5
PHAR-662: Professional Development IV	1
PHAR-672: IPPE IV	2
Elective Courses	6

YEAR 3	
University of Maryland Eastern Shore	Credits
Required Advanced Practice Pharmacy Experiences (APPEs)	
PHAR-700: APPE – Advanced Community Practice	5
PHAR-701: APPE – Advanced Institutional Practice	5
PHAR-702: APPE – Acute Care	5
PHAR-703: APPE – Ambulatory Care	5
Elective APPEs (Select 4)	20
APPE Patient Care Elective	
PHAR-711: APPE – Home Infusion	
PHAR-713: APPE – Emergency Medicine	
PHAR-714: APPE – Hematology/Oncology	
PHAR-715: APPE – Patient Care	
APPE Systems Elective	
PHAR-704: APPE – Public Health	
PHAR-710: APPE – Drug Information	
PHAR-712: APPE – Management and Leadership	
PHAR-720: APPE – General Elective	
PHAR-799: Professional Seminar	2
Program Total Credit Required Hours – 164.5	164.5

Abbreviations: IPPE – Introductory Pharmacy Practice Experience, PTMM – Pharmacotherapy and Medication Management, APPE – Advanced Pharmacy Practice Experience, SCH – Semester Credit Hours

*At least one elective must come from each category: patient care and systems

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