Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	

*Each **action** below requires a separate proposal and cover sheet.*

New Academic Program	Substantial Change to a Degree Program
New Area of Concentration	Substantial Change to an Area of Concentration
New Degree Level Approval	Substantial Change to a Certificate Program
New Stand-Alone Certificate	Cooperative Degree Program
Off Campus Program	Offer Program at Regional Higher Education Center

Payment Submitted:	Yes / No	Payment Type:	R*STARS # / Check #	Payment Amount:	Date Submitted:

Department Proposing Program	
Degree Level and Degree Type	
Title of Proposed Program	
Total Number of Credits	
Suggested Codes	HEGIS: CIP:
Program Modality	On-campus Distance Education (fully online) Both
Program Resources	Using Existing Resources Requiring New Resources
Projected Implementation Date (must be 60 days from proposal submisison as per COMAR 13B.02.03.03)	Fall Spring Summer Year:
Provide Link to Most Recent Academic Catalog	URL:

Preferred Contact for this Proposal	Name:
	Title:
	Phone:
	Email:

President/Chief Executive	Type Name:
	Signature: _(signature)_ Date: June 27, 2023
	Date of Approval/Endorsement by Governing Board:

Revised 1/2021

June 12, 2023

Dr. Emily Dow, Assistant Secretary
Maryland Higher Education Commission
6 N. Liberty Street
Baltimore, MD 21201

Dear Dr. Dow:

This letter informs the Commission that the Board of Trustees has approved the new stand-alone certificate in Health Sciences.

The stackable Health Sciences certificate is only available in the southern Maryland region. The certificate provides opportunities for access to critically needed healthcare programming leading to careers with demonstrated employment needs.

If further information is required, please contact Dr. Yolanda Wilson, President via email at yswilson@csmd.edu.

Sincerely,

Dr. Yolanda Wilson
President, College of Southern Maryland

La Plata Campus
8730 Mitchell Road, PO Box 910
La Plata, MD 20646
301-934-2251 • 301-870-3008

Leonardtown Campus
22950 Hollywood Road
Leonardtown, MD 20650
240-725-5300

Prince Frederick Campus
115 J.W. Williams Road
Prince Frederick, MD 20678
443-550-6000

Regional Hughesville Campus
6170 Hughesville Station Place
Hughesville, MD 20637
301-539-4730

A. Centrality to Institutional Mission and Planning Priorities:

1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation. (Additional related information is required in section L.

4. Provide a description of the institution's a commitment to:

   a) ongoing administrative, financial, and technical support of the proposed program

   b) continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

The new lower division Health Sciences certificate is designed to provide the foundation for continued study in the field of health sciences. The certificate provides a course of study designed to meet the needs of students who plan to study and transfer to a college or a university that grants an associate or baccalaureate degree in various areas of health sciences. Students enrolled in this certificate program will take classes that are commonly found in associate degree program pre-admission requirements and/or prerequisite courses for baccalaureate degree courses. As such, the certificate will be available as a stackable credential positioned within the Pre-Professional Health Sciences degree.

This innovative certificate program has been designed in collaboration with other Maryland community colleges that are part of the Maryland Education Alliance (MEA) to provide a structure for academic progression and credential stacking. It allows students to complete the first year of an associate degree program in a health sciences field at one institution, followed by a second year in a specialized health sciences program at another institution. This collaboration benefits students as they will be able to complete the certificate at their local community college, and then transfer these credits to another community college that offers the health sciences program not offered at their local community college. This also assists the community colleges as they will not be duplicating programs or competing for clinical placements.

The College of Southern Maryland's mission statement emphasizes that the college "enhances lives and strengthens the economic vitality" of our region (https://www.csmd.edu/about/strategic-plan/index.html). The Health Sciences Certificate contributes directly to this mission in that students will be prepared to articulate to career focused associate degrees in the health field through articulation agreements established with the Maryland Education Alliance (MEA). Students will

also be able to stack the Health Sciences certificate within the Pre-Professional Health Sciences AS degree and be prepared to transfer to 4-year colleges to complete a degree with a health career focus vital to the southern Maryland region. Within the three counties supported by the college, health careers are in high demand and there is a robust job market for graduates. The Calvert Health Medical Center is the third largest employer in Calvert county and the Calvert County Health Department is the fifth. Major Employers | Calvert County, MD - Official Website (ecalvert.com). For St. Mary's County, MedStar St. Mary's Hospital is the second largest employer, and in Charles County, the University of MD Charles Regional Medical Center is the fourth largest employer. MajorEmployersInStMarysCounty.pdf (maryland.gov) Major Companies in Charles County, Maryland | Charles County Economic Development (meetcharlescounty.com)

The addition of a Health Sciences Certificate directly supports the college's strategic plan goal #1: Improve student progress and completion. Students interested in a career-focused health program will have an identified pathway to success which will provide clarity while completing prerequisites for the petition-required health programs. Students will be able to seamlessly complete pre-requisite courses and articulate to MEA options across the state.

The certificate uses existing resources and is currently adequately funded. There are no anticipated changes in funding needed. The current operational budget for the science department is supported by the college. The expected consumable costs for science labs are known and budgeted. No additional faculty are needed to manage the program changes.

The College of Southern Maryland is committed to ongoing administrative, financial, and technical support of the new health sciences certificate. A new Associate Dean and Chair of Science began the position in August 2022. The person in this role provides academic leadership to the science area and manages lab support staff who provide technical support for science labs. The college has committed to replacing science faculty as they have retired from the college. This will ensure adequate faculty availability for course and program management.

The Health Sciences certificate consists mostly of general education classes that are offered at the college continuously. Should a situation occur where we need to discontinue this certificate program, the general education courses will remain in place allowing all students to complete the certificate requirements. For courses in the certificate program that are not classified as general education courses (e.g., Medical Terminology) the college would ensure that these classes are offered and taught during a teach-out.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan:

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:
   a) The need for the advancement and evolution of knowledge

   b) Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education

   c) The need to strengthen and expand the capacity of historically black institutions to provide high quality and unique educational programs

1. Provide evidence that the perceived need is consistent with the Maryland State Plan for Postsecondary Education.

The Health Sciences certificate program is designed to provide a strong health science–related prerequisite foundation so students are prepared to apply and enroll in a health sciences degree program at CSM or transfer to an MEA community college that offers a health sciences program that CSM does not offer.

Health professionals are a vital part of the health care team. Through the Health Sciences certificate, students will engage in critical thinking and become experienced learners who understand diverse cultural perspectives. Students will develop and use appropriate personal and interpersonal skills needed as a healthcare provider. These skills are the foundation for understanding how diversity, equity, and inclusion manifest themselves in caring for patients and working as part of a healthcare team. Furthermore, connection to a purposeful program that is applicable to their end goal will act as a motivator for progress and completion.

With the current critical shortages of healthcare personnel, the Health Sciences certificate provides an opportunity for advancement and evolution of knowledge through seamless articulations and transfer for completion of associate and bachelor's degrees that will impact the health of the southern Maryland region.

According to the 2022 Maryland State Plan for Higher Education, one of the three primary goals is promoting and implementing practices and policies that will ensure student success. Priority 6 and 7 state that success entails improving systems that prevent timely completion of an academic program and enhancing the ways postsecondary education is a platform for lifelong learning (2022 Maryland State Plan for Higher Education). The Health Sciences certificate will impact persistence as students complete the first year of courses at their home college, followed by articulation to an MEA program or continued study towards an associate or bachelor's degree. Having a larger goal becomes more manageable with smaller successes (Why Thinking Small Is The Secret To Big Success (forbes.com)). This certificate supports the lifelong learning goal of moving from community college to university to healthcare fields with continuing education requirements.

C. **Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State**:

1. Describe potential industry or industries, employment opportunities, and expected level of entry (*ex: mid-level management*) for graduates of the proposed program.
2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.
3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.
4. Provide data showing the current and projected supply of prospective graduates.

According to the Occupational Handbook (https://www.bls.gov/ooh/healthcare/home.htm), employment in healthcare occupations is projected to grow 13 percent from 2021 to 2031. This represents the addition of about 2 million new jobs over the next decade. Factoring in the additional need to replace workers who leave the field, job projections indicate that there will be a need to fill

an average of almost 2 million job openings each year. Job growth in the health field is predicted to be much faster than the average for all occupations.

Completion of a Health Sciences certificate is designed to provide a basis for further study in the health sciences leading to a career. The certificate meets the needs of students who plan to study and transfer to a college or university that grants an associate degree or higher in various health sciences programs. Some examples of career pathways a student may pursue include respiratory therapists, radiology technicians, and surgical technologists. According to the Maryland Department of Labor as of July 2022, the Education and Health Services sector experienced the most growth with an increase of 3,500 jobs from the Health Care and Social Services subsector.

The median annual wage for healthcare practitioners and technical occupations was $75,040 in May 2021, which was higher than the median annual wage for all occupations of $45,760. Sonographers earn a median wage of $75, 380, respiratory therapists earn a median wage of $61,830, Health Services Managers earn a median wage of $101,340, public health administrators earn a median wage of $71,449.

The State of Maryland's long-term occupational projections for the following professions from 2020-2030 are as follows:

Field	2020 openings	2030 openings	% increase
Respiratory therapist	3203	3868	20.76%
Nuclear Medical Technologist	490	559	14.08%
Surgical Technologist	2664	3093	16.1%
Radiology Technologist	5255	5956	13.34%
Massage Therapists	1192	2539	27.465

https://www.dllr.state.md.us/lmi/iandoproj/maryland.shtml

D. **Reasonableness of Program Duplication:**

1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.
2. Provide justification for the proposed program.

The Health Sciences certificate was designed in collaboration with other Maryland community colleges that are part of the MEA. This certificate provides a structure for academic progression and credential stacking. It allows students to complete the first year of an associate degree in a health sciences field at CSM, followed by a second year in a specialized program at CSM or another MEA institution. The certificate program is outcome-based and designed to meet the prerequisite requirements of designated health sciences programs offered at MEA institutions. The Health Sciences certificate is also stackable into the Pre-Professional Health AS transfer degree. The flexibility offered by this certificate program will allow students the opportunity to seamlessly transfer into a wider range of health sciences programs not offered CSM, but are available at one of the MEA institutions. Presently, in the State of Maryland, only Cecil Community College is offering a similar Health Sciences certificate with the identical goal of providing a course of study designed to meet the needs of students who plan to study and transfer to a college or a university that grants an associate or baccalaureate degree in various areas of health sciences. Anne Arundel Community College has also submitted their proposal

for a health sciences certificate to MHEC. Other MEA institutions are presently working to develop similar Health Sciences certificate programs to broaden the availability of health sciences program opportunities for students across the state. In collaboration with Anne Arundel Community College, Prince George's Community College, Chesapeake College, Carroll Community College, Harford Community College and Cecil College, students will have the ability to take advantage of programs not currently available at CSM.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBI's.

The Health Sciences certificate program is designed to provide a strong health sciences-related prerequisite foundation so students are prepared to apply and transfer to a college or university for further study in a variety of health sciences careers. This offers students the ability to begin their academic preparation at the community college level cost-effectively, efficiently and economically, while preparing the student for a transfer to another two- or four-year institution, improving the pool of applicants who are qualified to attend a high-demand program at an HBI.

F. Relevance to the identity of Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.

Maryland HBIs that offer bachelor's programs in health sciences fields include Coppin State University and University of Maryland Eastern Shore. This certificate program has the potential to increase the participation of underrepresented students in the health professions by providing a clear transfer pathway to these HBIs and contributing to an increased diverse presence in health sciences majors at HBIs

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes (as outlined in COMAR 13B.02.03.10):

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

The proposed Health Sciences certificate was developed in collaboration with colleges in the MEA. The concept was to promote the ability for a home institution (specifically in this application, CSM) without an accredited health sciences program at their college to send students to a fellow MEA institution that has an established and accredited program. This partnership has several benefits, allowing students to initially enroll and participate in courses at their home institution, limiting travel and expense, while earning transferable credits that are fully applicable to the host institution that provides a career pathway of interest not available to the student otherwise. Benefits for the institutions include less competition for clinical placements, an ability to accept a diverse student population from varied parts of the state, and efficient use of laboratory space, faculty, and expenses when full cohorts can be expected.

The Health Sciences certificate program will be housed in the School of Science and Health and will be managed by the Associate Dean. CSM will continue to make use of the adequate administrative, financial and technical support provided by the school to the program.

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

The student learning outcomes for the certificate will be the following:
- Demonstrate and apply proficiency in the basic sciences including laboratory skills and knowledge of biology.
- Demonstrate use of a variety of different instruments and techniques to collect, organize, evaluate and present data.

These outcomes are essential to any health field and are supported by the core courses that provide a strong science foundation in preparation for entering a health field.

3. Explain how the institution will:
    a) provide for assessment of student achievement of learning outcomes in the program
    b) document student achievement of learning outcomes in the program

Assessment of student learning outcomes will be completed using the College of Southern Maryland's required assessment plan. Each academic year at least one program student learning outcome will be assessed and reported to the Director of Academic Assessment for review by the Academic Learning and Assessment Committee (ALAC).

Assessment data from BIO 2170 and BIO 2180 will be used to measure Program Outcome 1: Demonstrate and apply proficiency in the basic sciences including laboratory skills and knowledge of biology.

Assessment data from BIO 2170 and BIO 2180 will be used to measure Program Outcome 2: Demonstrate use of a variety of different instruments and techniques to collect, organize, evaluate and present data

Assessment data is documented in the program's End-of-Year Report which is submitted to ALAC for accountability.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements
5. Discuss how general education requirements will be met, if applicable.

The proposed curricula can be found directly below. General Education courses are identified in bold.

Health Sciences Certificate.

Course	Credits
SEMESTER 1	
ENG 1010 - Composition and Rhetoric	**3**
BIO 2170 - Human Anatomy and Physiology I with Lab	**4**
MTH 1120 – College Algebra OR MTH 1015 – Introduction to Statistics	**3**

SOC 1010 - Introduction to Sociology	**3**	
Program Elective	3	
SEMESTER 2		
HEA 1105 – Comprehensive Medical Terminology	3	
BIO 2180 - Human Anatomy and Physiology II with Lab	4	
Gen Ed Elective – Acceptable: See Gen Ed Listing	**3**	
ENG 1020 – Composition and Literature	**3**	
TOTAL	**29 credits**	

The Health Sciences Certificate meets all the general education requirements for an A.A.S. degree per the chart below. Refer to course requirements above in bold that show compliance.

Arts or Humanities	1 course	3 credits
Social and Behavioral Sciences	1 course	3 credits
Biological and Physical Sciences	1 course	4 credits
Mathematics	1 course	3 credits
English Composition	1 course	3 credits
General Education elective	1 course	3 credits

5. Identify any specialized accreditation or graduate certification requirements for this program and its students.

There are no specialized accreditation or graduate certification requirements for this program and its students.

6. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

The College of Southern Maryland is not contracting with another institution.

8. Provide assurance and any appropriate evidence that the proposed program will provide students with
clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system,
availability of academic support services and financial aid resources, and costs and payment policies.

9. Provide assurance and any appropriate evidence that
advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

The College of Southern Maryland will provide clear, complete, and timely information on the curriculum, academic support services, financial aid resources and payment policies through the college's catalog and web site. In addition, students receive information about technical requirements and use of the learning management system through the college's Help Desk and

support from the Distance Learning and Faculty Development area of the college. Professional development opportunities are available for faculty to enhance pedagogical skills to better support student success.

Advertising, recruiting, and admissions materials clearly and accurately represent the proposed program and available student services. Prospective and current students have access to the same online materials detailing these resources. In addition, marketing materials are developed through collaboration among academic leaders and the Marketing staff using a shared platform for proofing and editing materials.

See below evidence of student access to information and support:

https://catalog.csmd.edu/
https://www.csmd.edu/student-services/index.html
https://www.csmd.edu/student-services/learning-support/tutoring/index.html
https://www.csmd.edu/programs-courses/credit/online-learning/getting-started.html
Pre-Professional Health Science (csmd.edu)

Program Description for the catalog:

The health sciences certificate curriculum emphasizes science and liberal arts courses that are required for transfer and completion of an associate or bachelor's degree in a health field. Students are advised to review the entrance requirements of the institutions from which they plan to obtain their health degree and meet with a College of Southern Maryland professional advisor prior to developing their academic plan.

Course Descriptions for the Pre-Professional Health Sciences AS degree:
An * symbol indicates the course has a pre-requisite.

BIO-2170 - Human Anatomy & Physiology I with Lab* (S) (4 Credits)
Students study the anatomy and physiology of human body cells, tissues, and the integumentary, skeletal, muscular, nervous (including special senses), and endocrine systems with an emphasis on homeostasis. Students are required to participate in a recitation. Students dissect preserved specimens, which includes a brain and eye, and perform a VH (virtual human) dissection on software for the muscles. Human models and physiological experiments are also used. This course satisfies the General Education Biological/Physical Science with Lab requirement.

BIO-2180 - Human Anatomy & Physiology II* (S) (4 Credits)
This is the second of a two course sequence dealing with anatomy and physiology of the human body. Students study the anatomy and physiology of the human digestive, circulatory, lymphatic, urinary, reproductive, and respiratory systems with an emphasis on homeostasis. Students use models, the Virtual Human (VH) dissection software, physiological exercises, and preserved specimens to identify anatomical structures from these systems.

ENG-1010 Composition and Rhetoric* (3 Credits)
Students in this course complete their first semester college-level composition course. Students focus on planning, organizing, and developing a variety of argumentative compositions. Students practice the conventions of written Standard American English, gain information literacy skills, and learn research and documentation techniques including conducting online and print research and documenting sources. By the end of the semester, students demonstrate their ability to write a

unified and coherent argument-based essay of about one thousand words that incorporates research and is nearly free of grammatical, mechanical, and structural errors.

ENG-1020 - Composition & Literature* (H) (3 Credits)
Students in this course complete their second semester college-level composition course. Using critical literary analysis, students build on the planning, organizing, and critical analysis skills learned in ENG-1010, Composition and Rhetoric. Students use literature (short fiction, poetry, and drama) as the basis of their critical analysis and to extend, deepen, and illuminate their own experiences and connections with the larger world and contemporary issues. Students further master the conventions of written Standard American English, information literacy skills, and research and documentation techniques including conducting online and print research and documenting sources. By the end of the semester, students demonstrate their ability to write a unified, coherent argument-based essay that is nearly free of grammatical, mechanical, and structural errors.

HEA-1105 - Comprehensive Medical Terminology (3 Credits)
This course teaches the students to accurately spell and define common medical terms related to major disease processes, pharmacology categories, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities for each body system. Case studies and medical reports are utilized to prepare students for using medical terms in context as they are encountered in medical transcription, coding, and other record processing activities

MTH-1015 Intro to Statistics* (M) (3 Credits)
In this introduction to descriptive and inferential statistics, students learn about presentation of data, measures of central tendency and dispersion, the binomial and normal probability distributions, sampling techniques, correlation and regression, and hypothesis testing (z-test, t-test, chi-squared). Examples are selected from education, business, and the social and natural sciences.

MTH-1120 College Algebra* (M) (3 Credits)
Designed to provide students with a solid foundation in algebra this course is intended primarily for students with scientific or technical majors, and with MTH-1130, prepares students for the study of calculus. Topics include real and complex numbers, intervals, algebraic, exponential and logarithmic functions, graphing and solving various types of equations involving second and higher order terms, radicals, and absolute value. Graphical interpretations are emphasized throughout the course. Some topics are supported by the use of computer software and the use of graphing calculators. This course satisfies the General Education Mathematics requirement.

SOC-1010 - Introduction to Sociology (B, C) (3 Credits)
The scientific study of human behavior in groups explores the relationships among society, culture, and personality development. Social groups, social control, collective behavior, and social change are related to the family, economics, government, and politics. This course satisfies the General Education Social/Behavioral Science requirement and the Core Competency for Cultural and Global Awareness.

H. Adequacy of Articulation

1. If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements.

CSM coursework transfers to Maryland public institutions based on the rules outlined in the

Code of Maryland Regulations (COMAR 13B.06 General Education and Transfer). This certificate in Health Sciences utilizes existing coursework to establish a clear pathway for students to complete the first year of an associate degree with a health sciences concentration and fulfills the prerequisite requirements for students to continue in a second year in a specialized program at an MEA institution. Each of the participating MEA colleges has established shared articulation agreements for the purpose of providing students opportunities to complete health sciences focused associate degrees through a shared resources model.

I. Adequacy of Faculty Resources (as outlined in COMAR 13B.02.03.11).

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of **faculty with appointment type, <u>terminal degree title and field</u>, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faulty member will teach in the proposed program.**

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

   a) Pedagogy that meets the needs of the students

   b) The learning management system

   c) Evidenced-based best practices for distance education, if distance education is offered.

All faculty teaching in the Health Science certificate program are highly educated and have the expertise to deliver quality classroom and laboratory teaching that enables students to achieve the student learning outcomes. In addition, the College of Southern Maryland provides ongoing pedagogy training for faculty in evidenced-based best practices including pedagogy that meets the needs of the students, training related to use of the learning management system, and training related to best-practices for distance education. The college's Distance Learning and Faculty Development area has designed numerous online courses that prepare faculty to use the college's learning management system, BrightSpace, D2L. Faculty (full-time and adjunct) are required to complete this training as a condition of employment. In addition, the college uses an ongoing peer review and support process called Online Academic Rigor and Presence (OARP) to provide education and continuous improvement on best practices related to distance learning. The college's Division of Learning Schools also provide monetary support for faculty to attend professional development. Through the Faculty Development Committee, peer colleagues and guest speakers also address the ongoing education for pedagogy that supports the needs of students.

Health Sciences Certificate Faculty

Faculty Member	Terminal Degree and Area	Academic Title/Rank	Full-time or part-time	Courses taught
Tracey Stuller	DVM, Biology	Professor	Full-time	BIO 2170, BIO 2180
Lori Crocker	MS, Biology	Associate Professor	Full-time	BIO 2180
Margaret Bolton	MS, Biology	Professor	Full-time	BIO 2180
Edith Carron	PhD, Biology	Professor	Full-time	BIO 2010/L
Melanie Osterhouse	DC, Biology	Professor	Full-time	BIO 2170, BIO 2180

Sharon Smith-Douglas	MS, Biology	Professor	Full-time	BIO 2170, BIO 2180
Turner Coggins	MS, Biology	Professor	Full-time	BIO 2170
Amie Severino	PhD, Biology	Adjunct Faculty	Part time	BIO 2170, BIO 2180
Ejikeme Anadu	MD, Biology	Adjunct Faculty	Part time	BIO 2170
Jesse Boyce	DPM, Biology	Adjunct Faculty	Part time	BIO 2170
Everett Oliver	PhD, Biochemistry	Assistant Professor	Full-time	BIO 2170, BIO 2180
Rachel Clark	MS, Biology	Adjunct Faculty	Part time	BIO 2170, BIO 2180
Catherine Heim	DC	Adjunct Faculty	Part time	BIO 2170, BIO 2180
Christopher Gransberry	PhD,Health Management	Assistant Professor	Full Time	HEA 1105

J. Adequacy of Library Resources (as outlined in COMAR 13B.02.03.12).

1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program.

Students may borrow circulating materials from any of the three CSM library branches. Through the interlibrary loan program (ILL), students can order almost any book, periodical article, or document needed. These materials are generally available within one week of the request. Library resources also include audiovisual collections use in the library and classrooms only. Additionally, substantial material is available through online databases, including ProQuest and EBSCO.

CSM's President assures that appropriate library resources are available to support the needs of this program.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment (as outlined in COMAR 13B.02.03.13)

1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences.

2. **Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:**
   a) **An institutional electronic mailing system, and**
   b) **A learning management system that provides the necessary technological support for distance education**

CSM is a leader among Maryland community colleges in offering courses which meet the busy schedules of our students. CSM courses include the following formats: traditional face-to-face courses, asynchronous online courses, real-time technology courses, Hy-flex courses which allow

students to choose in-person or remote learning, and Web-hybrid courses which offer a mix of online and traditional classroom face-to-face instruction.

The college makes available state-of-the-art facilities on four campuses to accomplish its mission in support of our community's academic, professional, and self-enrichment pursuits. Theory content classes can meet in the standard classrooms for all concentrations. Standard classrooms include a smart podium, dry erase board, projection screen, and projector. Some classrooms are outfitted with cameras for a hy-flex option. Science labs are equipped with non-flammable lab benches in the form of lines or work groups. Chemistry/microbiology labs have gas hook-ups at the student work stations. The classrooms and laboratories are adequately outfitted and reflect the common set-up seen in other institutions and lab settings. The buildings, classrooms and laboratories are ADA accessible with ramps and elevators where appropriate. No accessibility issues have arisen regarding physical spaces.

The software used in each discipline must have a VPAT that is analyzed for accessibility through the CSM accessibility department. The D2L courses have recently instituted the use of Ally, a software that indicates the accessibility of the materials within the course shell.

Students are provided with college email addresses and have access to Help Desk support for use of email, the learning management system, and other technology.

CSM's President assures that appropriate physical facilities, infrastructure, and instructional equipment are available to support the needs of this program.

L. Adequacy of Financial Resources with Documentation (as outlined in COMAR 13B.02.03.14)
   1.   Complete **Table 1: Resources and Narrative Rationale**. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.
   2.   Complete **Table 2: Program Expenditures and Narrative Rationale**. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category.

It is anticipated that the curriculum change will lead to an increase in program enrollment over the next 5 years. The Health Sciences certificate will provide a clear pathway for students to follow to completion of an associate degree at CSM or through the MEA. The Health Sciences certificate will use its existing physical and personnel resources. These resources are adequate to support the program's needs.

RESOURCES

Tuition and Fee Revenue:

The Health Sciences certificate will be able to be completed as a stand-alone certificate and as a stackable credential within the Pre-Professional Health Sciences AS degree. Currently, there are 65 full-time students enrolled in the Pre-Professional Health Sciences degree program with the remaining 280 enrolled students being part time students. The certificate is planning for a 2%

increase in enrollment over the next 5 years based on the increased transferability through the MEA and other individual 4-year college articulations. The in-county tuition rate of $137/credit is used for budget calculation along with the combined fee rate of 25%/tuition which equates to $34.25/credit. Tuition and Fees (csmd.edu). Using these tuition and fees as a baseline yields $1,181,625 in starting revenue. As the College of Southern Maryland only charges students per credit and does not charge an annual tuition rate, all student revenue information is entered in rows D through F calculated at an average of 20 credits per year per student.

Year 1 Revenue:
65 full time students + 280 part time students = 345 students X $171.25 per credit X 20 credits per year = $1,181,625.

Year 2 Revenue:
67 full time students + 286 part time students = 353 students X $171.25 per credit X 20 credits per year = $1,209,025.
Year 3 Revenue:
69 full time students + 292 part time students = 361 students X $171.25 per credit X 20 credits per year = $1,236,425.

Year 4 Revenue:
71 full time students X $171.25 + 298 part time students = 369 students X $171.25 per credit X 20 credits per year = $1,263,825.

Year 5 Revenue;
73 full time students + 304 part time students = 377 students X $171.25 per credit X 20 credits per year = $1,291,225.

Other Resources:

Reallocated Resources: There will not be reallocation of existing resources.

Grants and Contracts: There are currently no grants and contracts allocated to this program.

Other Sources: There are no other sources of revenue associated with this program.

TABLE 1: RESOURCES:					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	0	0	0	0	0
2. Tuition/Fee Revenue (c + g below)					
a. Number of F/T Students	0	0	0	0	0
b. Annual Tuition/Fee Rate	N/A	N/A	N/A	N/A	N/A
c. Total F/T Revenue (a x b)	0	0	0	0	0
d. Number of P/T Students	345	353	361	369	377

e. Credit Hour Rate	171.25	171.25	171.25	171.25	171.25
f. Annual Credit Hour Rate	20	20	20	20	20
g. Total P/T Revenue (d x e x f)	$1,181,625	$1,209,025	$1,236,425	$1,263,825	$1,291,225
3. Grants, Contracts & Other External Sources	0	0	0	0	0
4. Other Sources	0	0	0	0	0
TOTAL (Add 1 – 4)	1,202,175	$1,209,025	$1,236,425	$1,263,825	$1,291,225

EXPENDITURES

Faculty, FTE, Salary, and Benefits

A total of 5 faculty will provide sufficient coverage for teaching the FTE associated with the Pre-Professional Health Sciences degree program. The mid-point salary for Assistant Professor rank faculty at the College of Southern Maryland is $85,064.

5 faculty X $85,064 = $425,320

Benefits are calculated at .35 X the salary. $425,320 X .35 = $148,862

Administrative Staff, Salary and Benefits

The Associate Dean for the School of Science and Health has administrative oversight for the Pre-Professional Health Sciences Degree program. The person in this position is responsible for all science programs at the College of Southern Maryland. An estimated 10% of his time will be allocated directly to this one program.

10% of the entry level salary ($80,101) for this position = $8,010.
Benefits are calculated at .35 X the salary. $8,010 X .35 = $2,803

Support Staff, Salary and Benefits

The Science Lab Coordinator I provides support for management of lab courses for the science department. An estimated 10% of her time will be allocated directly to this program.

10% of the entry level salary ($39,164) for this position = $3,916.
Benefits are calculated at .35 X the salary. $3,916 X .35 = $1,371

Equipment: Consumable supplies and equipment will be used for lab course management. It is estimated that $12,000 in supplies and equipment will be adequate for lab course support.

Library: Library materials are purchased through the library's operating budget. There is no cost specifically associated with this program, but $500 per year is estimated to make library staff requests for updated materials.

New or Renovated Space: There will not be any costs associated with new or renovated space

Other Expenses: There will not be costs associated with other expenses.

Maryland Higher Education Commission

Please do not leave any cells blank. Place a "0" in the cell if no data is applicable for the specfic expenditure category.

TABLE 2: PROGRAM EXPENDITURES:					
Expenditure Categories	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1. Faculty (b + c below)	$574,182	$574,182	$574,182	$574,182	$574,182
a. Number of FTE	5	5	5	5	5
b. Total Salary	$425,320	$425,320	$425,320	$425,320	$425,320
c. Total Benefits	$148,862	$148,862	$148,862	$148,862	$148,862
2. Admin. Staff (b + c below)	$10,813	$10,813	$10,813	$10,813	$10,813
a. Number of FTE	0.10	0.10	0.10	0.10	0.10
b. Total Salary	$8010	$8010	$8010	$8010	$8010
c. Total Benefits	$2803	$2803	$2803	$2803	$2803
3. Support Staff (b + c below)	$5,287	$5,287	$5,287	$5,287	$5,287
a. Number of FTE	0.10	0.10	0.10	0.10	0.10
b. Total Salary	$3,916	$3,916	$3,916	$3,916	$3,916
c. Total Benefits	$1,371	$1,371	$1,371	$1,371	$1,371
4. Technical Support and Equipment	$12,000	$12,000	$12,000	$12,000	$12,000
5. Library	$500	$500	$500	$500	$500
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses	0	0	0	0	0
TOTAL (Add 1 – 7)	$602,782	$602,782	$602,782	$602,782	$602,782

Maryland Higher Education Commission
Academic Program Proposal Resources Guildlines

PROGRAM RESOURCES AND NARRATIVE RATIONALE

Finance data for the first five years of program implementation are to be entered in each cell in Table 1 – Program Resources and Narrative Rationale. Figures should be presented for five years and then totaled for each year. As an attachment, narrative explanation must accompany each category. Below is the format for Table 1 as well as directions for entering the data and writing the accompanying narrative.

TABLE 1: PROGRAM RESOURCES AND NARRATIVE RATIONALE

1. **Reallocated Funds**

   Data: Enter the amount of funds for the first five years of implementation that will be reallocated from existing campus resources to support the proposed program. This would include funds reallocated from the discontinuance or downsizing of academic programs.

   Narrative: Analyze the overall impact that the reallocation will have on the institution, particularly on existing programs and organizational units.

2. **Tuition and Fee Revenue**

   Data: Enter the estimated tuition and fee revenue that will be directly attributable to students new to the institution enrolled in this program each year. The revenue should be calculated by multiplying the tuition rate by the projected annual FTE enrollment.

   Narrative: Describe the rationale for the enrollment projections used to calculate tuition and fee revenue.

3. **Grants and Contracts**

   Data: Enter the amount of grants, contracts or other external funding which will become available each of the five years as a direct result of this program.

   Narrative: Provide detailed information on the sources of the funding. Attach copies of documentation supporting the funding. Also, describe alternative methods of continuing to finance the program after the outside funds cease to be available. **Conditional approval may be granted to a proposal that is dependent on grant funds that have not been officially awarded at the time of proposal submission, but in which substantial evidence has been provided to indicate a favorable review and an impending grant award is imminent.** Under these conditions, program approval may be granted for a twelve-month period. During this period, the program may not be implemented. Full program approval is granted only after funding documentation is accepted. Under extraordinary circumstances, a one-time extension to conditional approval may be granted to an institution that provides compelling information to warrant an extension.

4. **Other Sources**

   Data: Enter any additional funds from sources other than in 1, 2, and 3 that have been specifically designated for the program.

   Narrative: Provide detailed information on the sources of the funding, including supporting documentation.

5. **Total Year**

   Data: Total the financial resources that will be available for each year of program implementation. Include cumulative as well as one-time resources.

   Narrative: Additional explanation or comments as needed.

Program Resources and Narrative Rationale table on following page

Maryland Higher Education Commission
Academic Program Proposal Expenditures Guidelines

PROGRAM EXPENDITURES

Finance data for the first five years of program implementation are to be entered in each cell in Table 2 – Program Expenditures. Figures should be presented for five years and then totaled for each year. Below is the format for Table 2 as well as directions for entering the data.

TABLE 2: PROGRAM EXPENDITURES

1. **Faculty (# FTE, Salary, and Benefits):** Enter (a) the cumulative number of new full-time equivalent faculty needed to implement the program each year, (b) the related salary expenditures, and (c) the related fringe benefit expenditures. (For example, if two new faculty members are needed, one in the first year and one in the second, the full-time equivalency, salary, and benefits for one member should be reported in Year 1, and the same information for both members should be reported in Year 2 and each successive year.)

2. **Administrative Staff (# FTE, Salary, and Benefits):** Enter (a) the cumulative number of new full-time equivalent administrative staff needed to implement the program each year,(b) the related salary expenditures, and (c) the related fringe benefit expenditures.

3. **Support Staff (# FTE, Salary, and Benefits):** Enter (a) the cumulative number of new full-time equivalent support staff needed to implement the program each year, (b) the related salary expenditures, and (c) the related fringe benefits expenditures.

4. **Equipment:** Enter the anticipated expenditures for equipment necessary for the implementation and continuing operation of the program each year.

5. **Library:** Enter the anticipated expenditures for library materials directly attributable to the new program each year.

6. **New and/or Renovated Space:** Enter anticipated expenditures for any special facilities (general classroom, laboratory, office, etc.) that will be required for the new program. As a footnote to the table or in attached narrative, indicate whether the renovation of existing facilities will be sufficient or new facilities will be necessary.

7. **Other Expenses:** Enter other expenditures required for the new program. Attach descriptive narrative or provide footnotes on the table. Included in this category should be allowances for faculty development, travel, memberships, office supplies, communications, data processing, equipment maintenance, rentals, etc.

8. **Total Year:** Add each expenditure (continuing and one-time) to indicate total expenditures for each year of operation.

Program Expenditures table on following page

M. Adequacy of Provisions for Evaluation of Program (as outlined in COMAR 13B.02.03.15).

1. Discuss procedures for evaluating courses, faculty and student learning outcomes.

2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

The College of Southern Maryland uses a systematic process of assessment for program and course evaluation. This process supports the institutional value of Excellence which is defined as committing to high standards and clear expectations. The systematic process of assessment collects information to determine whether CSM's academic offerings are having the appropriate educational impact on students. The process is outlined below.

Program Assessment at CSM is a cyclical process that includes:
1. Program Reviews conducted every five-six years, or more often as needed.
2. Academic certificate programs are included within the review of degree programs.
3. Program Monitoring conducted every year as part of the End of Year (EOY) report.
4. Program Assessments of Student Learning conducted on a cycle established by faculty.
In addition, CSM conducts course evaluations every semester or, more often when deemed necessary.

The program reviews include collecting and analyzing information regarding student retention, student and faculty satisfaction, and cost-effectiveness of the program. The program review consists of a self-study, an external review, and an executive summary which includes an action plan for improving any areas of deficit mentioned above.

N. Consistency with the State's Minority Student Achievement Goals (as outlined in COMAR

13B.02.03.05).
1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.

The College of Southern Maryland is focusing intently on Diversity, Equity, Inclusion, and Belonging (DEIB) goals. By joining Achieving the Dream in 2019, the College of Southern Maryland is actively seeking to improve student learning with a sharp focus on closing equity gaps according to [Institutional Equity (csmd.edu)](#). In 2021, the college's Board of Trustees developed four strategic goals with the second goal being to ensure equity in all programs and services.

Meeting this goal has four strategies:
- Improve hiring practices to ensure equity for all
- Use disaggregated data to close equity gaps
- Expand digital access and technology to ensure equity for all learners
- Strengthen cultural competency among all employees

The Equity and Inclusive Diversity Office at the college works to nurture an environment at CSM that is welcoming, inclusive, and restful for all students, staff, faculty, and visitors according to [Equity and Inclusive Diversity (csmd.edu)](#).

In addition, the College of Southern Maryland promotes a civility statement to further support a sense of inclusion and belonging. The college defines civility as the demonstration of respect for others through basic courtesy and the practice of behaviors that contribute toward a positive environment for learning and working. While on any college campus or facility, attending any college event, or on any college electronic/cyber space (online course, email, telephone, etc.), faculty, staff, students, and visitors can all have the expectation of civility from one another (Civility Statement (csmd.edu)).

The college views the following ideals as fundamental to civil behavior:
• Courteous and honest communication in both face-to-face and electronic environments
• Fair and just treatment of individuals
• Freedom from harassment
• Collegiality
• Support for a diverse campus community
• Adherence to the values of the professions in dealings with students, colleagues, and associates
• Respect for diverse cultures and points of view
• Restraint from vulgar and offensive language

Members of the college community can expect these ideals are modeled consistently by trustees, administrators, faculty, and staff.

O. Relationship to Low Productivity Programs Identified by the Commission:
   1.   If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.

This program is not identified as a low productivity program.

P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)
   1.   Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.
   2.   Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.

If this is not a distance education program, please state "This program will not be offered as a distance education program."

The program is not offered as a distance learning program.