Your time. Your place.
Chesapeake College

May 1, 2023

James D. Fielder, Jr., Ph.D.
Secretary of Higher Education
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Dr. Fielder:

Attached, please find Chesapeake College's request to add a new associate degree program, Information Technology - AS. This program is nearly identical to our current AAS 470 - Computer Science Technology but is designed for transfer to four-year schools with the addition of general education courses. The AAS is not designed for transfer and require fewer general education courses.

A check (#372880) in the amount of $850 was mailed to cover the fees associated with this transaction.

If you have any questions or require additional information, please contact Lyndy Galan, Director of Program Development at lgalan@chesapeake.edu or 410-827-5824.

Sincerely,

David A. Harper Jr.
Vice President for Workforce & Academic Programs

Office Use Only: PP#

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

Institution Submitting Proposal	Chesapeake College

Each action below requires a separate proposal and cover sheet.

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

Payment Submitted: [x] Yes [ ] No Payment Type: [ ] R*STARS # 372880 [x] Check # 372880 Payment Amount: $850 Date Submitted: 05/01/23

Department Proposing Program	STEM	
Degree Level and Degree Type	Associate of Science Degree	
Title of Proposed Program	Information Technology	
Total Number of Credits	60	
Suggested Codes	HEGIS:	CIP:
Program Modality	[ ] On-campus [ ] Distance Education (fully online) [x] Both	
Program Resources	[x] Using Existing Resources [ ] Requiring New Resources	
Projected Implementation Date (must be 60 days from proposal submisison as per COMAR 13B.02.03.03)	[x] Fall [ ] Spring [ ] Summer	Year: 2023
Provide Link to Most Recent Academic Catalog	URL: (program will be in catalog July 2023)	
Preferred Contact for this Proposal	Name: Lyndy Galan	
	Title: Director of Program Development	
	Phone: (410) 827-5824	
	Email: lgalan@chesapeake.edu	
President/Chief Executive	Type Name: David A. Harper Jr.	
	Signature: [signature]	Date: 04/21/2023
	Date of Approval/Endorsement by Governing Board:	03/23/2023

Revised 1/2021

MARYLAND HIGHER EDUCATION COMMISSION

New Academic Degree Program

Information Technology

A. Centrality to institutional mission statement and planning priorities:

Chesapeake College's core commitment is to prepare students from diverse communities to excel in further education and employment in our region and beyond. Our programs and services are designed with our regional economic development and sustainability in mind. In addition, the college is committed to the support of workforce development by providing the courses and training needed to build a skilled labor force.

The Chesapeake College 2019 – 2024 Strategic Plan explicitly calls for strengthening the regional economy notably by, "providing meaningful face-to-face and online educational programming and support that anticipates and meets the needs and expectations of our students and our region"[1]. In our region, and throughout the state of Maryland, the computer science technology field is one of the fastest growing and highest paying career paths, showing no signs of slowing down.

The strategic plan also shares the goal to "calibrate programming to maximize appropriateness and relevancy"[2]. The proposed Information Technology degree provides students with a foundation in computers and technology and provides a path for transfer to a four-year institution. Our Computer Science Technology AAS is more content-focused and not designed for transfer. This change emerges from collaboration with the CS/IT/ISM/Cyber Affinity group for two-year colleges in Maryland. This group is in year three of planning and communicating with four-year MD colleges to expand their acceptance of credits from community colleges.

The program will be staffed with existing faculty members, adjunct faculty, and administrative support and facility resources.

B. Critical and compelling regional or statewide need as identified in the State Plan:

The 2022 Maryland State Plan for Higher Education has identified several key priorities. The proposed Information Technology program supports the following priorities:

1. Priority 3: *"Analyze and improve systems that inform and evaluate a student's academic readiness for postsecondary education".* Chesapeake College works closely with the high schools within the five-county service region to provide dual enrollment for students interested in the computer science field. Representatives from the College admission team regularly meet students within their school, on the college campus, and during college-hosted events to discuss the program pathways. This early exposure to technology-focused career paths, and the conversations about entry requirements, allows students to better understand the necessity of maintaining a strong GPA, among other essential school performance measures. Students within the five-county service region can take advantage of

[1] "The Peake Plan" (2019 – 2024) Chesapeake College Strategic Plan.
[2] "The Peake Plan" (2019 – 2024) Chesapeake College Strategic Plan.

articulation agreements that allow students to earn college credits while still in high school. The early opportunity for college training allows students to complete the necessary program pre-requisites during the high school years, saving time and money.

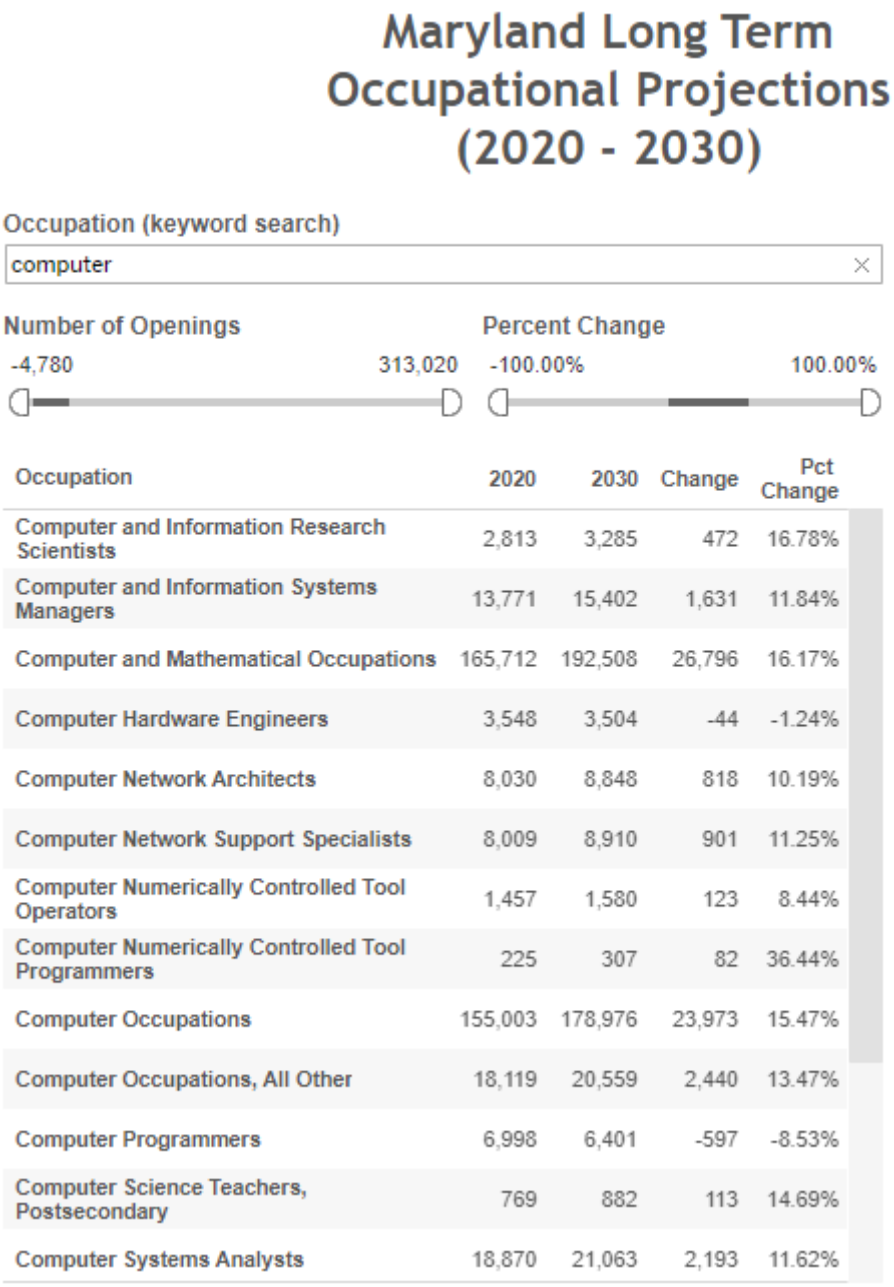
2. Priority 5: *"Maintain the commitment to high-quality postsecondary education"* and Priority 8: *"Promote culture of risk-taking".* The proposed Information Technology A.S degree and our Computer Science Technology A.A.S degree gives our students two "paths". Even though these are different programs, they both have an overlap of CST courses. Now, students will have the option to complete the AAS degree and enter the workforce upon graduation, or complete the AS degree to transfer to a four-year with foundations in Information Technology.
3. Priority 6: *"Improve systems that prevent timely completion of an academic program".* The Information Technology A.S will provide students a path to transfer to four-year schools. Dr. Lanka Elson, the program director, has worked closely with her Program Advisory Committee and in her co-chair role for the CS/IT/ISM/Cyber Affinity group for two year colleges in Maryland in order to improve academic coordination among institutions to address challenges faced by transfer students. An articulation agreement have been developed between Chesapeake College and University of Maryland Global Campus for students who completed the Information Technology A.S degree to transfer courses and credits to complete a bachelor's degree.

C. Quantifiable & reliable evidence and documentation of market supply and demand in the region and state:

The proposed Information Technology program enhances Chesapeake College's support for the growth of STEM programs within the region. The occupational projections shared below reflect growth within specific computer fields however, because most careers require some degree of computer literacy, the skills embedded within the program are woven throughout every industry in the 21st century workforce. Additionally, cybersecurity and IT is in the top ten key industries for Maryland, according to the Maryland Department of Commerce[3].

Occ Code	Occupation	2018	2028	Change	Growth Openings	Growth Rate	U
11-3021	Computer and Information Systems Managers	204.0	243.0	39.0	0.0	19.1%	
15-1121	Computer Systems Analysts	62.0	72.0	10.0	0.0	16.1%	
15-1142	Network and Computer Systems Administrators	173.0	198.0	25.0	0.0	14.5%	
15-1151	Computer User Support Specialists	129.0	155.0	26.0	0.0	20.2%	
15-1152	Computer Network Support Specialists	172.0	209.0	37.0	0.0	21.5%	
15-1199	Computer Occupations, All Other	81.0	98.0	17.0	0.0	21.0%	
15-1232	Computer User Support Specialists	61.0	67.0	6.0	0.0	9.8%	
51-4011	Computer-Controlled Machine Tool Operators, ...	68.0	63.0	-5.0	0.0	-7.4%	

[3] Maryland Department of Commerce: https://open.maryland.gov/industries



Occupation	2020	2030	Change	Pct Change
Computer and Information Research Scientists	2,813	3,285	472	16.78%
Computer and Information Systems Managers	13,771	15,402	1,631	11.84%
Computer and Mathematical Occupations	165,712	192,508	26,796	16.17%
Computer Hardware Engineers	3,548	3,504	-44	-1.24%
Computer Network Architects	8,030	8,848	818	10.19%
Computer Network Support Specialists	8,009	8,910	901	11.25%
Computer Numerically Controlled Tool Operators	1,457	1,580	123	8.44%
Computer Numerically Controlled Tool Programmers	225	307	82	36.44%
Computer Occupations	155,003	178,976	23,973	15.47%
Computer Occupations, All Other	18,119	20,559	2,440	13.47%
Computer Programmers	6,998	6,401	-597	-8.53%
Computer Science Teachers, Postsecondary	769	882	113	14.69%
Computer Systems Analysts	18,870	21,063	2,193	11.62%

D. Reasonableness of program duplication:
Information Technology programs are currently offered through other colleges and organizations within the state. However, Chesapeake College is well suited to be the primary provider to students within our five county service regions.

E. Relevance to high-demand programs at Historically Black Institutions (HBIs):
The Information Technology program has no impact, negatively or positively, on programs at HBIs. However, the coursework will prepare students for further education both at HBIs and/or other institutions.

F. Relevance to the identity of Historically Black Institutions (HBIs):
The Information Technology program has no impact, negatively or positively, on programs at HBIs.

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

The general education requirements have been increased for the A.S. Information Technology Program that is based on the A.A.S. Computer Science Technology (470) program. The A.A.S. Computer Science Technology program is not always easily transferable for students desiring to continue on to a four-year institution. Dr. Elson is the co-chair for the CS/IT/ISM/Cyber Affinity group for two year colleges in Maryland. They are in their third year of planning and communication with the four year colleges to expand their acceptance of credits from community colleges.

Program Description: The Information Technology program will provide students with a foundation in hardware, software, and programming and includes the required general education credits for transfer to a four-year institution. Students will acquire skills in basic programming, hardware, software, and web design. Students will also develop a working knowledge of ethics and career readiness skills (teamwork, communication, customer service, and professionalism.) for the IT field. In addition to taking the program core courses, students can focus their Information Technology degree with further study based on their choice of electives.

The Information Technology program will be assessed in accordance with Chesapeake College's program review process as outlined in the College Curriculum Guide.[4]

Program goals: The Information Technology program will:

- Provide content knowledge and skills for the College's general education competencies.
- Promote technical competency, professional knowledge, career readiness and ethical responsibility.
- Prepare students for certification exams in the technology industry.
- Prepare students for successful careers in the information technology field or for further study in the field.

Student Learning Outcomes: Upon successful completion of the program, students will be able to:

- General education – Preparation for transfer to a four-year institution.
- Web – Design and develop for the web.
- Tech – Employ hardware and software in technological scenarios.
- Programming – Apply programming skills to solve problems.
- Career Readiness – Career Readiness – Demonstrate career readiness through teamwork, communication, customer service, and professionalism.

Program Courses

Fall I

FSC 101 Freshman Seminar Course	1 credit
CST 102 Introduction to PowerBI & MySQL	3 credits
CST 109 Introduction to Computers	4 credits
Arts & Humanities (G.Ed.)	3 credits

[4] Chesapeake College. *Chesapeake College Curriculum Development Guide.* 2016.

MAT 107+ Foundations of Mathematics (G.Ed.)	3 credits or
MAT 140+ Calculus and Analytic Geometry I	4 credits or
MAT 113+ College Algebra	3 credits or
MAT115+ Precalculus	5 credits

Spring I

CST 119 Python 1 & Problem Solving	4 credits
Program Elective	3 - 4 credits
COM 101 Communications	3 credits
ENG 101 Composition (G.Ed.)	3 credits
Social/Behavioral Sciences (G.Ed.)	3 credits

Fall II

CST 208 HTML & Web Design	4 credits
PED 103 Wellness for Life	3 credits or
IDC 201 Nature of Knowledge	3 credits
Bio/Natural Sciences with Lab (G.Ed.)	4 credits
Program Elective	3 – 4 credits
Social/Behavioral Sciences (G.Ed.)	3 credits

Spring II

CST 217 Ethics for IT	3 credits
CST245 User Support	3 credits
Diversity Elective (G.Ed.)	3 credits
Bio/Natural Sciences with Lab (G.Ed.)	4 credits

Note: Students must take a minimum of (6) credits from the list of program electives.

MINIMUM REQUIRED CREDITS: 60

Program Electives: (Prefix Number Title Credits) – Students must take a minimum of 6 credits from this list of program electives

CST 125 Microsoft Office Applications	3 credits
CST 130 Adobe Photoshop	3 credits
CST 143 Operating Systems	3 credits
CST 145 Computer Hardware	3 credits
CST 154 Linux	3 credits
CST 220 HTML II & Responsive Web Design	4 credits
CST 234 Advanced Web Design	3 credits
CST 243 Microsoft Windows Server	3 credits
CST 250 Computer Networks	3 credits
CST 257 Computer Security	3 credits
CST 269 Python II	4 credits
COM 170 Introduction to Journalism and News Media	3 credits
OR	
BUS101 Introduction to Business	3 credits
MAT 110 Finite Mathematics	3 credits
OR	

MAT140 or MAT113 or MAT115 (If not already completed as required math class)

General Education Electives: (Prefix Number Title Credits)

ARTS and HUMANITIES	6 credits
One must be COM 101	
ENGLISH	3 credits
ENG 101 Composition	
MATHEMATICS	3 credits
MAT 107 Foundations of Mathematics	
BIOLOGICAL and NATURAL SCIENCES	7-8 credits
One course must contain a lab.	
SOCIAL and BEHAVIORAL SCIENCES	6 credits
DIVERSITY	3 credits
INTERDISCIPLINARY	3 credits

Course descriptions

CST 102 – Introduction to PowerBI & MYSQL
3 credits
An interactive approach to the manipulation and visual representation of data. Topics include basic database concepts, design, relational, database creation, SQL queries, data modeling, visualization, reports, and dashboards. The course provides a framework that can be used for the application of data analysis to general business problems. [FALL/SPRING] Two hours lecture, two hours laboratory per week.

CST 109 – Introduction to Computers
4 credits
A foundational survey course in computers. Course covers an introduction to programming, hardware, software, associated mathematical concepts, applications, internet resources, physical computing, and 3D printing. [FALL (CST Majors)/SPRING (all students)] Three hours lecture, two hours laboratory per week.

CST 119+ - Python I & Problem Solving
4 credits
A foundation in Python programming and problem solving. Topics include pseudo code, logic, flow, charts, syntax, IDE's libraries, data types, operators, loops, functions, decision & condition, statements, lists, debugging, and the use of algorithms. Other topics include an introduction to computer graphics programming and game design. [SPRING] Three hours lecture, two hours laboratory per week.
Prerequisite(s): You must complete CST 109 prior to taking this course. **Prereq/Corequisite:** You must take MAT 031+ (or have equivalent placement scores) prior to or at the same time as this course.

CST 208+ - HTML I & Web Design
4 credits

A foundational course in web design and development. Topics include HTML, CSS, JavaScript, design principles, web software, and FTP. [FALL] Three hours lecture, two hours laboratory per week.
Prerequisite(s): You must take CST 109 prior to taking this class.

CST 217+ - Ethics for IT
3 credits
A study of ethics in IT. Topics include ethical principles, decision making, laws, and responsibilities relating to IT. The course also covers the ethical use of data in the modern age and ethical applications of technology. [SPRING] Three hours lecture per week.
Prerequisite(s): You must complete CST 109 prior to taking this course.

CST 245+ - Computer User Support
3 credits
A study of user support and help desk operations for IT professionals. Topics include support basics, user support principles, help desk services & operations, career readiness (teamwork, communication, customer service, and professionalism), ethical behavior, ergonomics, product evaluation, troubleshooting, and incident management. [SPRING] Two hours lecture, two hours lab per week.
Prerequisite(s): CST 119+ or CST 208+ **Corequisite:** CST 217+

The Information Technology program will be fully supported through the college's marketing initiatives; all correlating materials accurately and concisely represent the program.

H. Adequacy of Articulation (as outlined in COMAR 13B.02.03.19):

Chesapeake has developed an articulation agreement with University of Maryland Global Campus. Students who complete the Information Technology Associate of Science will be able to transfer into UMGC's Cybersecurity Technology Bachelor of Science program (See Appendix A). We are also taking steps to articulate with other colleges in Maryland.

I. Adequacy of faculty resources (as outlined in COMAR 13B.02.03.11):

Program Director: Dr. Lanka Elson holds a Doctorate of Computer Science – Emerging Media and a Master's Degree from Colorado Technical University, and a Bachelor's degree from Colorado State University. Dr. Elson has over 20 years of college/university level teaching experience and 11 years of experience at the secondary education level. She is currently Chesapeake's Distinguished Teaching Chair (2022-2024), an honor that recognizes teaching excellence and innovation at the College. Dr. Elson taught at Colorado Technical University for 16 years, where she developed the first 3D printing class at the institution. She mentored a senior student in designing a 3D printed prosthetic tortoise shell. The innovation received worldwide publicity and acclaim.

Instructor: Jacqueline Blevins holds a Master of Science – Information Systems Technology, Masters of Business Administration (MBA) – Management Information Systems. She has over 20 years of experience in the field of education including three years of teaching experience at the college/university level.

Instructor: Jason Wright holds a Master's degree in Cybersecurity Technology, a Bachelor of Science in Computer Networks and Cybersecurity, and CISSP Certification. He has been an adjunct with Chesapeake for over a year, but has already made valuable contributions to the College.

Both adjuncts have provided over 30 credit hours of instruction at Chesapeake College and are well acclimated to the program and college infrastructure.

J. Adequacy of library resources (as outlined in COMAR 13B.02.03.12):

The library of Chesapeake College provides students, faculty and community members with various resources to meet their informational and research needs and supports the programs that make up the current curriculum offerings. The library has a collection of 30,000 print titles, more than 300,000 e-books, 1,500 audiovisual materials, 50 print serial subscriptions, and over 100,000 electronic print serials. The library subscribes to over 50 databases providing full-text material, bibliographic citations, images, audio, and films. In addition to the resources listed above, Chesapeake College has accumulated textbooks/reference books specific to the computer science industry including TKinkter, Pygame, and Python.

The library is a member of the Upper Eastern Shore Library Consortium which provides for resource sharing among the college and local public libraries. This program allows our patrons to borrow from public and academic libraries throughout the State of Maryland. Information about the college's library resources is found at http://info.chesapeake.edu/lrc/library. The President has affirmed that the program can be implemented within existing library resources.

K. Adequacy of physical facilities, infrastructure and instructional equipment (as outlined in COMAR 13B.02.03.13):

The classroom(s) used for the Computer Science Technology program are designed to support a variety of learning styles and contain all the necessary instructional features conducive for the delivery of content in several formats. The primary classroom used for instruction was renovated a couple of years ago to update the electrical needs and network drops. In addition, the room contains a computer to student ratio of 1:1. The learning space is equipped with a station dedicated for setting up Rasberry Pi computers and circuit boards scanners, laser printers, screen projection and an updated LCD projector, and a Lulzbot Mini 2 – 3D printer. A wide array of software is installed for student use including: Windows 10, MS Office 2016, Filezilla, IDLE 3.X for Python, Pygame, Notepad++, Cura, Real VNC, Chrome browser, Firefox browser, Maya, Adobe CC Suite, and Screencase-o-Matic.

Chesapeake College students also have access to a computer lab used for the Computer Science Technology program, which is equipped with the computers, external hard drives, high capacity flash drives, workbench computers (used for building PC's, configuration & loading operating systems), laser printers, and installation materials (used for operating system installations). Student computers are equipped with software such as: Windows 10, MS Office 2016, Filezilla, IDLE 3.X for Python, Oracle Virtual Box, Antivirus, Screencast-o-Matic, Chrome browser, and Firefox browser.

L. Adequacy of financial resources with documentation (as outlined in COMAR 13B.0203.14):

TABLE 1: PROGRAM RESOURCES AND NARRATIVE RATIONALE

1. **Reallocated funds:** This program will utilize existing faculty resources and administrative staff.

2. **Tuition and Fee Revenue:** We are projecting no more than a 2% tuition increase each year.

3. **Grants & Contracts:** While the tuition and course fees are designed to cover the immediate costs of the program, additional grants and private donations are anticipated to assist with site overhead and infrastructure needs.

4. **Other sources:** Other sources of revenue include Consolidated Fees[5] of $37 per credit hour; Capitol Improvement Fees[6] of $15 per registration transaction; and Registration Fees[7] of $10 per registration transaction.

5. **Total Year:** *Program Resources and Narrative Rational table on the following page.*

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)	$111,616.00	$139,122.00	$166,516.00	$196,112.00	$226,848.00
a. Number of F/T Students	28	33	38	43	48
b. Annual Tuition/Fee Rate[1]	$3,328.00	$3,406.00	$3,458.00	$3,536.00	$3,614.00
c. Total F/T Revenue (a x b)	$93,184.00	$112,398.00	$131,404.00	$152,048.00	$173,472.00
d. Number of P/T Students	12	17	22	27	32
e. Credit Hour Rate	$128.00	$131.00	$133.00	$136.00	$139.00
f. Annualized Credit Hour Rate	$1,536.00	$1,572.00	$1,596.00	$1,632.00	$1,668.00
g. Total P/T Revenue (d x e x f)	$18,432.00	$26,724.00	$35,112.00	$44,064.00	$53,376.00
3. Grants, Contracts & Other external sources	$0	$0	$0	$0	$0
4. Other Sources	$34,264	$41,794	$49,324	$56,854	$64,384

[5] Other sources: Consolidated Fee: Helps cover the cost of the Academic Support Center, student activities, technology, and general expenses of the college. This fee also covers use of the physical education facilities and equipment which all students have access to.
[6] Other sources: Capital Improvement Fee: Supplements county funds for facility improvements and equipment upgrades that do not meet the threshold for State funding
[7]Other sources: Registration Fee: Defrays cost of clerical support and supplies for registration processing.

TOTAL (Add 1 – 4)	$145,880.00	$180,916.00	$215,840.00	$252,966.00	$291,232.00

We are projecting a tuition increase of no more than 2% per year. In addition, we anticipate a 20% growth in enrollment each year as the program grows in popularity and marketing campaigns are enhanced.

TABLE 2: PROGRAM EXPENDITURES AND NARRATIVE RATIONALE

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	$98,467	$100,133	$101,828	$103,553	$105,310
a. Number of FTE	1.00	1.00	1.00	1.00	1.00
b. Total Salary	$79,610	$80,804	$82,016	$83,246	$84,495
c. Total Benefits	$18,857	$19,328	$19,812	$20,307	$20,815
2. Admin. Staff (b + c below)	$0	$0	$0	$0	$0
a. Number of FTE	$0	$0	$0	$0	$0
b. Total Salary	$0	$0	$0	$0	$0
c. Total Benefits	$0	$0	$0	$0	$0
3. Support Staff (b + c below)	$0	$0	$0	$0	$0
a. Number of FTE	$0	$0	$0	$0	$0
b. Total Salary	$0	$0	$0	$0	$0
c. Total Benefits	$0	$0	$0	$0	$0
4. Technical Support & equipment	$0	$0	$0	$0	$0
5. Library	$0	$0	$0	$0	$0
6. New or Renovated Space	$0	$0	$0	$0	$0
7. Other Expenses	$0	$0	$0	$0	$0
TOTAL (Add 1 – 7)	$98,467	$100,133	$101,828	$103,553	$105,310

The program will be implemented with existing administrative staff and campus resources. Campus resources are funded through the College's general operating budget each year. Salaries are forecasted to increase 1.5% each year, while health benefits are forecasted to increase 2.5% each year.

M. Adequacy of provisions for evaluation of program (as outlined in COMAR 13B.02.03.15):

The college uses a five-year internal program review process for all of its courses and programs. Additionally, all courses are reviewed annually with student opinion surveys. Faculty developed and approved assessment plans are implemented to monitor student mastery of all identified course and program goals and student learning outcomes. Programs also make use of Program Advisory Committees (PAC) with membership consisting of college faculty, administration, area business representatives, and local leaders from the community. This program is not evaluated by external entities.

N. Consistency with the state's minority student achievement goals (as outlined in COMAR 13B.02.04.05):

Chesapeake College will use its ongoing outreach strategies to feeder high schools and to communities with high concentrations of minority populations. The College has a strong dual enrollment program which will be used to encourage early decisions about career goals and career exploration. Also the college, working in cooperation with the local county schools, has initiatives such as grow your own programs, community mentors, and new financial incentives, to recruit and retain more minority students. The college has an aggressive "early alert" system as part of its student retention initiatives.

O. Relationship to low productivity programs identified by the commission:

This program is not related to low productivity programs identified by the Commission.

P. Adequacy of distance education programs (as outlined in COMAR 13B.02.03.22):

Chesapeake College follows C-RAC guidelines for distance education.

APPENDIX A

Your time. Your place. Chesapeake College

CHESAPEAKE ASSOCIATE OF SCIENCE IN INFORMATION TECHNOLOGY

Students transferring from Chesapeake with a conferred Associate of Arts or Associate of Science degree will have the General Education Requirement (Gen Ed) block of courses met at UMGC (A.A.S. degrees not included).
See community college advisor for course sequencing.

UNIVERSITY OF MARYLAND GLOBAL CAMPUS

CATALOG YEAR: 2022-2023

UMGC BACHELOR OF SCIENCE IN CYBERSECURITY TECHNOLOGY

http://www.umgc.edu/transfers-and-credits/community-college-alliances/maryland-community-college-alliances.cfm

Degree requirements may change based on the date of initial enrollment at UMGC.

CREDITS	CHESAPEAKE COLLEGE Requirements for Associate's Degree	UNIVERSITY OF MARYLAND GLOBAL CAMPUS Requirements for Bachelor's Degree
1	FSC 101 Institutional requirement	Elective
3	CST 102 Program requirement	CMIT elective
4	CST 109 Program requirement	IFSM 201 (Gen Ed Computing; prerequisite to the major)
3	Arts & Humanities Gen Ed requirement	Gen Ed Arts & Humanities
3-5	MAT 107, MAT 113, MAT 115, or MAT 140 Gen Ed Mathematics	MATH 103, MATH 107, MATH 115, or MATH 140 (Gen Ed Mathematics)
4	CST 119+ Program requirement	CMIS elective
3	CST 145+ recom'd Program elective	◆ CMIT 202 (required for the major)
3	COM 101 Gen Ed requirement	SPCH 100 (Gen Ed Communications)
3	ENG 101+ Gen Ed requirement	WRTG 112 (Gen Ed Communications; *must be completed with C- or better*)
3	Social/Behavioral Sciences Gen Ed requirement	Gen Ed Behavioral & Social Science
4	CST 208+ Program requirement	CMST 385* (elective)
3	IDC 201+ recom'd Program requirement	Gen Ed Arts & Humanities
4	BIO/Natural Sciences w/Lab Gen Ed requirement	Gen Ed Biological & Physical Lab Science
3	CST 250+ recomd Program elective	◆ CMIT 265 (required for the major)
3	Social/Behavioral Sciences Gen Ed requirement	Gen Ed Behavioral & Social Science
3	CST 217+ Program requirement	IFSM 304* (elective)
3	CST 245+ Program requirement	CMIT elective
3	Diversity elective Gen Ed requirement	Elective (fulfills Gen Ed Communications for Gen Ed block)
4	BIO/Natural Sciences w/Lab Gen Ed requirement	Gen Ed Biological & Physical Science
60-62	**Total Credits Transferred**	

REMAINING UMGC DEGREE REQUIREMENT RECOMMENDED SEQUENCE UPON TRANSFER WITH ASSOCIATE'S DEGREE	
LIBS 150 or other Gen Ed course (to be fulfilled with 1 credit of CST 217+ from Chesapeake)	---
PACE 111T Program and Career Exploration in Technology or other 3-credit PACE 111	3
◆ CMIT 291 Introduction to Linux (required for the major)	3
Elective	3
◆ CMIT 320 Network Security (required for the major)	3UL
Elective	3
◆ CMIT 321 Ethical Hacking (required for the major)	3UL
Elective	3
◆ CMIT 351 Switching, Routing, and Wireless Essentials (required for the major)	3UL
Elective	3
◆ CMIT 326 Cloud Technologies (required for the major)	3UL
WRTG 393 Advanced Technical Writing or other upper-level writing (Gen Ed Communications)	3UL
Elective (must be taken upper-level)	3UL
◆ CMIT 421 Threat Management and Vulnerability Assessment or other upper-level CMIT course(required for the major)	3UL
Elective (must be taken upper-level)	3UL
◆ CMIT 386 Penetration Testing and Cyber Red Teaming or other upper-level CMIT course (required for the major)	3UL
Elective	3
◆ CCJS 321 Digital Forensics in the Criminal Justice System or other upper-level CMIT course (required for the major)	3UL
Elective (must be taken upper-level)	3UL
◆ CMIT 495 Current Trends and Projects in Computer Networks and Cybersecurity (required capstone for the major)	3UL
Elective	0-3
TOTAL CREDITS REMAINING AT UMGC	**58-60**

NOTES: Minimum of 120 credits, including 36 upper-level (courses numbered 300-499) required for bachelor's degree with minimum 2.0 (C) grade point average (GPA) / No course within major or minor below 2.0 GPA / At least one-half of credits within major and minor comprised of: a. upper-level; b. UMGC resident; c. traditional college courses earning a grade / Maximum of 70 transfer credits to UMGC from 2-year or community college (actual number of transfer credits dependent on meeting all UMGC bachelor degree requirements) / WRTG 112 completed with grade of 1.67 GPA (C-) or better / ◆ = Denotes course in major at UMGC / * = Denotes lower-level course meets content requirement of upper-level course but does not transfer as upper-level / **UL** = Denotes upper-level course