



July 11, 2019

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

Dear Dr. Fielder,

Capitol Technology University is requesting approval to offer a **Bachelor of Science (B.S.) in Counterterrorism**. The degree curriculum will be taught using a significant number of existing faculty at our university and will be supplemented by new courses supporting the **B.S. in Counterterrorism**. The mission of Capitol Technology University is to provide practical education in engineering, computer science, information technology, and business that prepares individuals for professional careers and affords the opportunity to thrive in a dynamic world. A central focus of the university's mission is to advance practical working knowledge in areas of interest to students and prospective employers within the context of Capitol's degree programs. The university believes that a **B.S. in Counterterrorism** is consistent with this mission.

There is a growing requirement for highly trained counterterrorism professionals. This program is in response to that need. The **B.S. in Counterterrorism** degree is for students who desire to advance in their careers by earning a bachelor's degree in a growing and demanding field.

**To respond to needs of the global security and intelligence communities, we respectfully submit for approval a Bachelor of Science (B.S.) in Counterterrorism. The required proposal is attached as well as the letter from me as university president confirming the adequacy of the university's library to serve the needs of the students in this degree.**

Respectfully,

A handwritten signature in blue ink, appearing to read 'B.L. Sims', with a long horizontal stroke extending to the right.

Bradford L. Sims, PhD



July 11, 2019

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

Dear Dr. Fielder,

This letter is in response to the need for confirmation of the adequacy of the library of Capitol Technology University to support the proposed **Bachelor of Science (B.S.) in Counterterrorism**. As president of the university, I confirm that the library resources, including support staff, are more than adequate to support the **B.S. in Counterterrorism**. In addition, the university is dedicated to, and has budgeted for, continuous improvement of its library resources.

Respectfully,

A handwritten signature in blue ink, appearing to read 'BLS', positioned above the printed name.

Bradford L. Sims, PhD



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

|                                 |                               |
|---------------------------------|-------------------------------|
| Institution Submitting Proposal | Capitol Technology University |
|---------------------------------|-------------------------------|

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

- |  |  |
|--|--|
| <input checked="" type="radio"/> New Academic Program New<br><input type="radio"/> Area of Concentration New<br><input type="radio"/> Degree Level Approval New<br><input type="radio"/> Stand-Alone Certificate<br><input type="radio"/> Off Campus Program | <input type="radio"/> Substantial Change to a Degree Program<br><input type="radio"/> Substantial Change to an Area of Concentration<br><input type="radio"/> Substantial Change to a Certificate Program<br><input type="radio"/> Cooperative Degree Program<br><input type="radio"/> Offer Program at Regional Higher Education Center |
|--|--|

|  |  |         |  |
|--|--|---------|--|
| Department Proposing Program                 | Department of Business and Information Sciences  |         |  |
| Degree Level and Degree Type                 | Bachelor of Science (B.S.)   |         |  |
| Title of Proposed Program                    | B.S. in Counterterrorism   |         |  |
| Total Number of Credits                      | 120  |         |  |
| Suggested Codes                              | HEGIS: 2199  | CIP: 43 |  |
| Program Modality                             | <input type="radio"/> On-campus <input type="radio"/> Distance Education ( <i>fully online</i> ) <input checked="" type="radio"/> Both   |         |  |
| Program Resources                            | <input checked="" type="radio"/> Using Existing Resources <input type="radio"/> Requiring New Resources  |         |  |
| Projected Implementation Date                | <input checked="" type="radio"/> Fall <input type="radio"/> Spring <input type="radio"/> Summer             Year: 2019   |         |  |
| Provide Link to Most Recent Academic Catalog | URL: <a href="https://www.captechu.edu/current-students/academic-resources">https://www.captechu.edu/current-students/academic-resources</a>                                       |         |  |
| Preferred Contact for this Proposal          | Name: Professor Soren Ashmall<br>Title: Director, Assessment & Accreditation<br>Phone: (571) 332-4344<br>Email: <a href="mailto:spashmall@captechu.edu">spashmall@captechu.edu</a> |         |  |
| President/Chief Executive                    | Type Name: Dr. Bradford Sims<br>Signature:              Date: 7-11-19  |         |  |
| Approval/Endorsement by Governing Board      | Type Name: Dr. Bradford Sims<br>Signature:              Date: July 11, 2019  |         |  |

Revised 5/15/18



**PROPOSAL FOR:**

- NEW INSTRUCTIONAL PROGRAM**
- SUBSTANTIAL EXPANSION/MAJOR MODIFICATION**
- COOPERATIVE DEGREE PROGRAM**
- WITHIN EXISTING RESOURCES** or  **REQUIRING NEW RESOURCES**



Institution Submitting Proposal

**Fall 2019**

Projected Implementation Date

**Bachelor of Science**  
Award to be Offered

**Counterterrorism**  
Title of Proposed Program

**2199.00**

Suggested HEGIS Code

**43.0304**

Suggested CIP Code


**Business and Information Sciences**  
Department of Proposed Program

**Professor Hashem Tabrizi**  
Name of Department Head

**Prof. Soren Ashmall**  
Director, Assessment  
and Accreditation

**spashmall@captechu.edu**  
Contact E-Mail Address

**571-332-4344**  
Contact Phone Number

 **7-11-19**  
Signature and Date

President/Chief Executive Approval

**JULY 11, 2019**  
Date

Date Endorsed/Approved by Governing Board

**Proposed Bachelor of Science in Counterterrorism  
Department of Business and Information Sciences  
Capitol Technology University  
Laurel, Maryland**

**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.**

*Bachelor of Science in Counterterrorism Program Description:*

The **Bachelor of Science (B.S.) in Counterterrorism** degree program is designed to meet the long-standing needs of governments to combat terrorism in all of its various forms. The **B.S. in Counterterrorism** program provides undergraduate-level education where the latest counterterrorism concepts are reviewed, analyzed and put into the framework with of the modern terrorist threat. Throughout the program, the latest strategies, tactics, laws and policy decisions in the prevention of terrorism are explored and applied to real-world challenges. Students will learn the best methods and techniques to deal with the expanded landscape of opportunities for terrorists to collaborate, to radicalize individuals, to create threats, to plan attacks of violence, and execute terrorist operations.

The **B.S. in Counterterrorism** will prepare students to use advanced counterterrorism skills to help protect people, businesses, infrastructure, proprietary products and intellectual property. The student will learn to analyze terrorist attack patterns, employ proven methods of prevention to actively counter radicalization and recruitment, as well as to develop, detect and promote early warnings against terrorism.

The **B.S. in Counterterrorism** provides the student with the ability to understand and incorporate a wide variety of decision-making skills and tools into the complex environment of threat prevention. Capitol Technology University graduates will be able to take their cutting-edge skills in counterterrorism and counterintelligence, along with their skills and understanding of cybersecurity, and apply them to threat scenarios that might be encountered on any given day. While studying counterterrorism at the undergraduate level, the student will learn how businesses, and local and federal government agencies, can or should function effectively and efficiently. Students will develop a clear picture of how the wide variety of threat-prevention enterprises—public and private—can collaborate to establish a well-developed system to help prevent terrorism. The required core courses will build a foundation that encompasses technology, management, marketing, Information Technology and communication.

*Relationship to Institutional Approved Mission:*

The **B.S. in Counterterrorism** is consistent with the University mission to educate individuals for professional opportunities in engineering, computer science, information technology, and business. The University provides relevant learning experiences that lead to success in the evolving global community. Fundamental to the degrees in the Department of Business and Information Sciences are opportunities to pursue cutting-edge knowledge combined with

technological applications, techniques, and procedures. The **B.S. in Counterterrorism** is consistent with that philosophy. This same philosophy is supported by the University's existing degree programs and learning opportunities. The University has the following undergraduate degrees: B.S. in Astronautical Engineering, B.S. in Business Analytics and Data Science, B.S. in Computer Engineering, B.S. in Computer Engineering Technology, B.S. in Computer Science, B.S. in Construction Management and Critical Infrastructure, B.S. Construction Safety, B.S. in Cyber Analytics, B.S. in Cybersecurity, B.S. in Electrical Engineering, B.S. in Electrical Engineering Technology, B.S. in Engineering Technology, B.S. in Facilities Management and Critical Infrastructure, B.S. in Management of Cyber and Information Technology, B.S. in Mechatronics Engineering, B.S. in Mechatronics and Robotics Engineering Technology, B.S. in Mobile Computing, B.S. in Software Engineering, and B.S. in Technology and Business Management, and B.S. in Unmanned and Autonomous Systems. The University also has the following degrees at the graduate level: M.S. in Aviation, M.S. in Computer Science, M.S. in Critical Infrastructure, M.S. in Cyber Analytics, M.S. in Cybersecurity, M.S. in Engineering Technology, M.S. in Information Systems Management, M.S. in Internet Engineering, M.S. in Unmanned and Autonomous Systems Policy and Risk Management, M.B.A., T.M.B.A. Business Analytics and Data Science, T.M.B.A. in Cybersecurity, D.Sc. in Cybersecurity, Ph.D. in Aviation, Ph.D. in Business Analytics and Decision Sciences, Ph.D. in Construction Science, Ph.D. in Critical Infrastructure, Ph.D. in Manufacturing, Ph.D. in Occupational Health and Safety, Ph.D. in Technology, Ph.D. in Technology/M.S. in Research Methods Combination Program, and Ph.D. in Unmanned Systems Applications. The **B.S. in Counterterrorism** degree fits within University's mission framework and is an integral part of the Strategic Plan for FY 2017-2021 and succeeding years. Funding to support the new degree has been included in the institutional and departmental budgets for FY 2019-2020 and forecasted budgets going forward.

The **B.S. in Counterterrorism** degree will be offered with courses both "on ground" in a traditional classroom setting at the University campus and online using the Canvas Learning Management System and Zoom. The result is the convenience required by the 21<sup>st</sup> Century learner and provides the interaction with faculty and fellow students that is critical to the high-level learning experience. The curriculum provides the undergraduate student the necessary learning tools that the University believes critical to success as a counterterrorism professional. The degree is also consistent with the interdisciplinary nature of the University.

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

Capitol Technology University operates on four strategic goals:

- 1. Expand Educational Offerings, Increase Program Completion:** *Capitol Technology University is an institution that offers career-relevant curricula with quality learning outcomes. The strategy includes continuing to expand educational offerings, increasing program completion, and raising learner qualifications and outcomes.*
- 2. Increase Enrollment and Institutional Awareness:** *Capitol will accelerate its goal pursuit to become more globally renowned and locally active through student, faculty and staff activities. Enrollment will grow to 650 undergraduates, 350 masters' students and 250 doctoral candidates.*
- 3. Improve the Utilization of University Resources and Institutional Effectiveness While Expanding Revenue:** *Capitol will likely continue to be 80% financially dependent*

*on student tuition and fees. We plan to enhance our resources by expanding the range and amount of funding from other streams and aligning costs with strategic initiatives.*

- 4. Increase the Number and Scope of Partnerships:** *Capitol's service to our constituents and sources of financial viability both depend upon participation with continuing and new partner corporations, agencies, and schools.*

The proposed **B.S. in Counterterrorism** builds upon the existing areas of undergraduate degree programs: B.S. in Astronautical Engineering, B.S. in Business Analytics and Data Science, B.S. in Computer Engineering, B.S. in Computer Engineering Technology, B.S. in Computer Science, B.S. in Construction Management and Critical Infrastructure, B.S. in Construction Safety, B.S. in Cyber Analytics, B.S. in Cybersecurity, B.S. in Electrical Engineering, B.S. in Electrical Engineering Technology, B.S. in Engineering Technology, B.S. in Facilities Management and Critical Infrastructure, B.S. in Management of Cyber and Information Technology, B.S. in Mechatronics Engineering, B.S. in Mechatronics and Robotics Engineering Technology, B.S. in Mobile Computing, B.S. in Software Engineering, and B.S. in Technology and Business Management, and B.S. in Unmanned and Autonomous Systems. The University also provides the following opportunities at the graduate level for a student to continue his/her academic pursuits: M.S. in Aviation, M.S. in Computer Science, M.S. in Critical Infrastructure, M.S. in Cyber Analytics, M.S. in Cybersecurity, M.S. in Engineering Technology, M.S. in Information Systems Management, M.S. in Internet Engineering, M.S. in Unmanned and Autonomous Systems Policy and Risk Management, M.B.A., T.M.B.A. Business Analytics and Data Science, T.M.B.A. in Cybersecurity, D.Sc. in Cybersecurity, Ph.D. in Aviation, Ph.D. in Business Analytics and Decision Sciences, Ph.D. in Construction Science, Ph.D. in Critical Infrastructure, Ph.D. in Manufacturing, Ph.D. in Occupational Health and Safety, Ph.D. in Technology, Ph.D. in Technology/M.S. in Research Methods Combination Program, and Ph.D. in Unmanned Systems Applications. The University's undergraduate degree programs prepare students to begin their careers, or further their careers, fully employed with enhanced leadership skills and technical expertise that meet the needs information-dependent organizations using modern technology. The University's programs have been preparing professionals for rapid advances in information and technology, intense global competition, and increasingly complex technological environments for decades. The **B.S. in Counterterrorism** will contribute to that legacy and will allow students to elevate their skills and careers to the next level as a commercial pilot.

The proposed **B.S. in Counterterrorism** is fully supported by the University's Vision 2025 and Strategic Plan 2017-2025. Funding to support the degree has been included in forecasted budgets going forward.

If approved, the new **B.S. in Counterterrorism** will use the Capitol Technology University's Information Literacy Path in the same manner as all of the other degrees at the institution. Information Literacy is infused in to the University's curriculum and the undergraduate experience. Capitol Technology University's Information Literacy Path begins during Orientation and Freshman Seminar. The experience continues every semester through the university's Writing Across the Curriculum program where there are writing assignments in all courses -- some of which require significant research. During the Freshman year, students are required to take English Communications I (EN-101) and English Communications II (EN-102). Both courses have a series of writing assignments that begin during Week 1 and continue to Week 16 of the semester. In addition to examining literature, EN-102 requires a team project in global research. There are two other courses that are required by every degree at the University: Ethics

(SS-351) and Arts and Ideas (HU-331). Both courses are focused on research and experiential learning. All students also have access to information videos on the University's portal that support Information Literacy through the University Library. All students at the University will experience all the markers in the Information Literacy Path regardless of learning modality (i.e., online, on ground, and hybrid).

The University also has active partnerships in the private and public arenas (e.g., Parsons Corporation, Leidos, Patton Electronics, Lockheed Martin, Northrup Grumman, Cyber Security Forum Initiative, IRS, NCS, NSA and DHS). The **B.S. in Counterterrorism** degree will provide new opportunities for partnerships as well as expanded research. The increase in partnerships and placement of our graduates in our partner institutions will serve to expand the University's enrollment and reputation. While additional enrollment will increase financial resources, additional partnerships and grants in the aviation field will help diversify and increase the University's financial resources.

**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.)**

Capitol Technology University will support the proposed program through the same process and level of support as the University's existing programs. Many of the program's courses already exist within other programs in the university. The University has also budgeted funds to support program and course development, online support, office materials, travel, professional development, and initial marketing. There is no substantial impact to the institution due to the advanced budgeting of these funds. If approved, the program is expected to be self-sustaining going forward.

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

**a. Ongoing administrative, financial, and technical support of the proposed program**

The proposed degree is an integral part of the University's Strategic Plan for FY 2017-2025 and forward. Funding for the administrative, financial, and technical support of the new degree has been included in the institutional and departmental budgets for FY 2019-2020 as well as the forecasted budgets going forward.

**b. Continuation of the program for a period of time sufficient to allow enrolled students to complete the program.**

Capitol Technology University is fully committed to continuing the proposed **B.S. in Counterterrorism** degree program for a sufficient period to allow enrolled students to complete the program.

**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 advancement and evolution of knowledge.**



(Source: FEMA 426, Risk Management Series: Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings)

The way that terrorism is conducted, in the U.S. and around the world, has changed dramatically over the last 18 years. However, the strategy and tactics of counterterrorism employed by the U.S. have not changed at the same pace or adapted to meet the new challenges posed by terrorists. As a result, the University is proposing the **B.S. in Counterterrorism** program in order to help train future counterterrorism professionals in the latest knowledge, tactics, techniques, and procedures.

We have developed extraordinary abilities to use our intelligence, our law enforcement and our military instruments, to use physical force against terrorists. It has saved thousands of lives. It has prevented another 9/11 attack on our own soil. It has done a great deal of good but . . . it has not reduced either the scale or the scope of terrorism around the world.”

(Source: <https://www.c-span.org/video/?c4804460/cts-challenge-future>, transcribed from a segment of C-SPAN’s airing of the June 17, 2019 panel discussion: “State Leaders Summit: Addressing Global Crisis.”)

Those are the words of Lt. Gen. Michael Nagata -- the Director of the National Counterterrorism Center’s Directorate of Strategic and Operational Planning. He participated in a June 17, 2019 panel discussion and made his remarks during that session. Lt. Gen. Nagata went on to say that “we need to invest far-more heavily in” preventive measures and methods—including professionals who know how to use these skills—in order to “turn the tide back” and to reduce the number of terrorists in the world. Lt. Gen. Nagata described this new direction in the U.S.’s counterterrorism effort as “a challenge for the future.”

In my judgment, the only way we’re going to prevent, not only the continuing growth of terrorism but actually turn the tide back to where, over the years, we have fewer and fewer terrorists in the world, is to do what I would argue any preventive medicine or public health official will tell you: The best way to deal with an infectious, contagious disease, is to prevent the emergence of the disease to begin with. But the tools that we use to do these things, none of them will be surprising, they’re efforts to contest a radical,

violent ideology, deal with extremist use of the Internet, change the conditions that make it seductive and tempting for someone to take, initially, the path to radicalization and, ultimately, mobilization of violence, far less attractive than it is today. We're not going to do that through the use of force. We're not going to do that by arresting people. There are a set of tools that, in my judgment, we need to invest far-more heavily in, and that is a challenge for the future."

(Source: <https://www.c-span.org/video/?c4804460/cts-challenge-future>, transcribed from a segment of C-SPAN's airing of the June 17, 2019 panel discussion: "State Leaders Summit: Addressing Global Crisis.")

Effective tactics, techniques, and procedures in the counterterrorism industry can only be achieved with a holistic and cutting-edge approach, along with the use of the advanced skills and strategies that will be covered in this proposed degree.

**b. Societal needs, including expanding educational opportunities and choices for minorities and educationally disadvantaged students at institutions of higher education.**

Capitol Technology University is a diverse multiethnic and multiracial institution with a long history of serving minority populations. The University has a 51% minority student population with 7% undisclosed. The Black/African American population is 34%. The university has military/veteran population of 22%. The University also has a 22% female population – a significant percentage given its status as a technology institution. If approved, the proposed **B.S. in Counterterrorism** will expand the field of opportunities for minorities and disadvantaged students.

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

While Capitol Technology University is not a historically black institution, the University is a diverse multiethnic and multiracial institution with a long history of serving minority populations. The University has a 51% minority student population with 7% undisclosed. The Black/African American population is 34%. The University has military/veteran population of 22%. The University also has a 22% female population – a significant percentage given its status as a technology institution. If approved, the proposed **B.S. in Counterterrorism** will expand the field of opportunities for minorities and disadvantaged students.

The table below shows the percentage employment of four separate racial or ethnic designations, and the percentage employment for women in National Security and International Affairs. The National Security and International Affairs category is the best fit of Bureau Labor Statistics categories for an analysis of counterterrorism professionals.

| Industry                            | 2018                      |       |                           |       |                    |
|-------------------------------------|---------------------------|-------|---------------------------|-------|--------------------|
|                                     | Percent of total employed |       |                           |       |                    |
|                                     | Women                     | White | Black or African American | Asian | Hispanic or Latino |
| National Security and Int'l Affairs | 33.9                      | 73.3  | 15.1                      | 6.6   | 12.8               |

(Source: <https://www.bls.gov/cps/cpsaat18.htm>)

Given the substantial minority population of Capitol Technology University, it is reasonable to assert that the **B.S. in Counterterrorism** program will add to this base of minority participation in the ranks of counterterrorism professionals.

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

The 2017-2021 Maryland State Plan for Postsecondary Education articulates three goals for postsecondary education:

1. Access
2. Success
3. Innovation

**Goal 1: Access**

*“Ensure equitable access to affordable and quality postsecondary education for all Maryland residents.”*

Capitol Technology University is committed to ensuring equitable access to affordable postsecondary education for all Maryland residents. The University meets its commitment in this arena through its diverse campus environment, admissions policies, and academic rigor.

The Capitol Technology University community is committed to creating and maintaining a mutually respectful environment that recognizes and celebrates diversity among all students, faculty, and staff. The University values human differences as an asset and works to sustain a culture that reflects the interests, contributions, and perspectives of members of diverse groups. The University delivers educational programming to meet the needs of diverse audiences. We also seek to instill those values, understanding, and skills to encourage leadership and service in a global multicultural society.

The University’s commitment to diversity is reflected in its student body. Capitol Technology University has a 51% minority student population with 7% undisclosed. The Black/African American population is 34%. The university has military/veteran population of 22%. The university also has a 22% female population – a significant percentage given its status as a technology university.

Achievement gaps: The University provides leveling courses in support of individuals attempting a career change to a field of study not necessarily consistent with their current

skills. There are situations where additional graduate and/or undergraduate courses best serve student needs in subject areas. The University makes those courses available.

The University engages in diversity training for its institutional population, including students. Diversity and inclusiveness are built in to the curriculum allowing graduates to operate effectively in a global environment. The University supports multiple diversity enhancing actions, including team projects and grants across degrees. This approach has proven effective at supporting multiple aspects of diversity.

Capitol Technology University does not discriminate on the basis of race, color, national origin, sex, age, sexual orientation, handicap in admissions, employment, programs, or activities.

Through its academic programs, Capitol Technology University seeks to prepare all its graduates to demonstrate four primary characteristics:

- **Employability:** *The ability to enter and advance in technical and managerial careers, appropriate to their level and area of study, immediately upon graduation.*
- **Communications:** *Mastery of traditional and technological techniques of communicating ideas effectively and persuasively.*
- **Preparation of the Mind:** *The broad intellectual grounding in technical and general subjects required to embrace future technical and managerial opportunities with success.*
- **Professionalism:** *Commitment to life-long learning, ethical practice and participation in professions and communities.*

The proposed **B.S. in Counterterrorism** program and University financial aid will be available to all Maryland residents who qualify academically for admission.

The **B.S. in Counterterrorism** program, with its academic rigor, will produce counterterrorism professionals for this critical field of study and employment. The University has a proven record of rigorous high-quality education. The University is fully accredited by three accrediting organizations. In addition to regional accreditation from the Middle States Commission on Higher Education (MSCHE), the University also has specialized accreditation from the International Accreditation Council of Business Education (IACBE) and Accreditation Board for Engineering and Technology (ABET). The **B.S. in Counterterrorism** program is consistent with the MSCHE criteria for regional accreditation of the delivery of high quality higher education.

### Goal 2: Success

*“Promote and implement practices and policies that will ensure student success.”*

The courses for the **B.S. in Counterterrorism** will be offered both “on ground” in a traditional classroom setting at the University campus and online using the Canvas Learning Management System and Zoom. The University provides a tuition structure that is competitive with its competitors. The University tuition structure does not differentiate between in-state and out-of-state students. Student services are designed to provide advising, tutoring, virtual job fair attendance, and other activities supporting student completion and employment for both on-ground and online students.

Students receive information throughout the admissions process regarding the cost to attend the University. The information is also publicly available on the University website. The University's Admissions Office and Office of Financial Aid identify potential grants, scholarships, and state plans for each student to reduce potential student debt. The net cost versus gross costs are identified clearly for the student. Students receive advising from Financial Aid Advisors prior to enrolling in classes for the first time. Admissions personnel, Student Services Counselors and Departmental Chairs advise students of the need for academic readiness as well as the degree requirements. A specific success pathway is developed for each student.

The University's tuition increases have not exceeded 3%. The University also has a tuition guarantee for undergraduates, which means full-time tuition is guaranteed not to increase more than 1% per year at the rate applied at time of enrollment. The tuition remains at this rate if the student remains enrolled full-time without a break in attendance.

The University has in place services and learning tools to guide students to successful degree completion. Programs such as Early Alert provide the University's faculty and staff opportunities for early student intervention on the pathway to graduation. This applies to all students regardless of the mode of course delivery or degree program. Capitol Technology University is also a transfer friendly institution and participates in multiple programs for government and military credit transfer. Capitol Technology University participates in the Articulation System for Maryland Colleges and Universities (ARTSYS) and has multiple transfer agreements with local institutions at all degree levels.

The University has in place services, tutoring, and other tools to help ensure student graduation and successful job placement. The University hosts a career (job) fair twice a year. The University has an online career center available to all students covering such topics as career exploration, resume writing, job search techniques, social media management, mock interviews, and assistance interpreting job descriptions, offers, and employment packages.

The University also works with its advisory boards, alumni, partners, and faculty to help ensure the degrees offered at the University are compatible with long-term career opportunities in support of the state's knowledge-based economy.

### **Goal 3: Innovation**

***“Foster innovation in all aspects of Maryland higher education to improve access and student success.”***

Capitol Technology University's past, present, and future is inextricably intertwined with innovation. The University has a long tradition of serving as a platform for the use of new and transformative approaches to delivering higher education. New technology and cutting-edge techniques are blended with proven strategies with the goal of enabling student success in all classroom modalities as well as in a successful career after graduation. As a small institution, Capitol Technology University has the agility to rapidly integrate new technologies into the curriculum to better prepare students for the work environment. The University designs curriculum in alliance with its accreditation and regulating organizations and agencies.



The University also employs online virtual simulations in a game-like environment to teach the application of knowledge in a practical hands-on manner. The University is engaged with a partner creating high-level virtual reality environments for specific courses in the degree. This use of current technology occurs in parallel with traditional proven learning strategies. These elements of the University's online learning environment are purposeful and intended to improve the learning environment for both the student and faculty member. In addition, these elements are intentionally designed to increase engagement, improve outcomes, and improve retention and graduation rates. The University believes that innovation is the key to successful student and faculty engagement.

Example: The University engages its students in 'fusion' projects, which allows students to contribute their skills in interdisciplinary projects such as those in our Astronautical Engineering and Cyber Labs. In those labs, students become designers, builders, and project managers (e.g., to send a CubeSAT on a NASA rocket) and data analysts (e.g., to analyze rainforest data for NASA). The University's students recently launched another satellite aboard a NASA rocket from a location in Norway at the beginning of the 2018 Fall Semester. We are also recruiting additional partners for the proposed **B.S. in Counterterrorism** for which real-world projects will provide students integrative learning opportunities.

The University also supports prior learning assessment. Portfolio analysis is available. The University accepts professional certifications for credit for specific courses. In addition, the University allows students to take a competency exam for credit for required courses up to the current state limits.

### **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.**

Opportunities exist in government, private industry, and cross-sector organizations for professionals with the proposed **B.S. in Counterterrorism** degree. There are currently 2,292 jobs listed on glassdoor.com for DC, MD and VA under the counterterrorism category and 2,453 jobs listed for the same area in the counterintelligence field. Indeed.com currently lists 695 open counterterrorism jobs in the DC, MD, and VA area, as well as 2,008 counterintelligence jobs for the DC/MD/VA area.

(Source:

<https://www.glassdoor.com/Job/jobs.htm?suggestCount=0&suggestChosen=false&clickSource=searchBtn&typedKeyword=Counterintelligence&sc.keyword=Counterintelligence&locT=&locId=&jobType=>, retrieved 7/4/2019)

(Source:

<https://www.glassdoor.com/Job/jobs.htm?suggestCount=0&suggestChosen=true&clickSource=searchBtn&typedKeyword=Counterterrorism&sc.keyword=Counterterrorism&locT=&locId=&jobType=>, retrieved 7/4/2019)

(Source: <https://www.indeed.com/jobs?q=counterterrorism&l=>, retrieved 7/4/2019)

(Source: <https://www.indeed.com/jobs?q=counterintelligence&l=#>, retrieved 7/4/2019)

Graduates with the **B.S. in Counterterrorism** will be expected to fill entry-level management and specialist positions in government organizations and commercial companies with titles such as:

- Counterterrorism Specialist
- Counterterrorism Manager
- Strategy Supervisor, Counterterrorism
- Project Officer, Counterterrorism
- Counterterrorism Specialist, Counterintelligence Directorate
- Counterterrorism Operative
- Counterterrorism Analyst

Graduates will also possess the required knowledge in counterterrorism to serve as a subject matter expert and form their own private company.

## **2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.**

The growth of counterterrorism positions continues to expand at a rapid rate given the continuing proliferation of terrorist actions around the globe and increased efforts to thwart similar actions within the United States. While data on the majority of the positions in the federal government are not disclosed publicly, the market demand was addressed on a career website under the title “Counter-Terrorism: Career and Salary Information”:

In a post-9/11 environment where terrorist attacks globally are on the rise, the outlook for counter-terrorism careers has skyrocketed. Careers in counter-terrorism (also spelled “counterterrorism”) cover a wide range of agencies, occupations, and skill sets.

When many people think of counter-terrorism, they immediately think of federal government careers. Federal agencies are often charged with the task of preventing terrorist activities, gathering evidence relating to these activities, and apprehending and prosecuting individuals who are planning or engaged in acts of terrorism. The Federal Bureau of Investigation (FBI), the Central Intelligence Agency (CIA), and the Department of Homeland Security (DHS) are the most highly visible government entities involved in counter-terrorism; however, various other agencies are involved in the fight to keep US citizens and interests secure.

While every job within the broader field of counterterrorism is distinct, people in counter-terrorism positions may analyze the intentions and motivations of groups that may be linked to acts of terrorism in order to predict threats and essentially prevent attacks from being carried out by these groups. Ultimately, the counter-terrorism professional aims to disrupt and disband terrorist groups' networks in order to defeat them. Counter-terrorism professionals may study the activities of known terrorist groups, research the activities of suspected terrorist groups, and report their findings to intelligence agencies, government officials, law enforcement agencies, and US policymakers.

Counter-terrorism professionals should be knowledgeable about current events. They

should be good communicators, as they may have to brief military and government officials and/or intelligence agencies on anti-terrorism efforts. Counterterrorism analysts should be critical thinkers and excellent problem-solvers so that they can provide analytic support to colleagues. They should be long-term learners, willing to study, receive training, and network to continually improve themselves and their position. Since counter-terrorism can be a high-stress field, professionals entering it should work well under pressure and be able to function well under strict deadlines. Previous experience traveling or working abroad, as well as proficiency in a foreign language, is a plus.

As the US continues to fight the war on terrorism, the career outlook in this field continues to be favorable. The average salary varies depending on the particular job description and geographic location of the job... CIA counterterrorism analysts may earn between \$54,308 to \$80,505 per year, or more with previous experience, plus benefits.

(Source: <https://www.criminaljusticedegreeschools.com/criminal-justice-careers/counter-terrorism-careers/>)

- 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.**

The growth of counterterrorism positions continues to expand at a rapid rate given the continuing proliferation of terrorist actions around the globe and increased efforts to thwart similar actions within the United States. While data on the majority of the positions in the federal government and the related needs are not disclosed publicly, the market demand was addressed on a career website under the title "Counter-Terrorism: Career and Salary Information." Please see Section C.2 above for a description of the educational and training needs of counterterrorism professionals.

- 4. Data showing the current and projected supply of prospective graduates.**

There are over 40 bachelor's degree programs in homeland security in the United States. However, none of those programs focuses exclusively on counterterrorism. Most of the programs provide only one or two 3-credit courses on the subject area. If approved, the **B.S. in Counterterrorism** will produce graduates with the required knowledge, skills, and abilities as counterterrorism professionals to help fill the growing demand for counterterrorism expertise at the entry-level management and specialist levels.

#### **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.**

There are currently no bachelor's degrees in Counterterrorism in the State of Maryland. The University of Maryland Global Campus (UMGC) does offer a B.S. degrees in the much broader areas of Homeland Security and Political Science. Within its B.S. in Political Science, UMGC does offer one required course related terrorism as well as three optional courses related to

terrorism. Those courses can be taken as electives for the B.S. in Homeland Security. However, UMGC does not offer a bachelor's degree specifically focused on counterterrorism. Coppin State University (CSU) offers a B.S. in the adjacent area of Criminal Justice; however, the degree has only one 400-level elective course on terrorism. CSU does not offer a bachelor's degree specifically focused on counterterrorism. Bowie State University (BSU) offers a B.S. and B.A. in the adjacent area of Criminal Justice, too; however, the program only offers one optional 400-level class on terrorism and one optional 400-level class on global security within its Social Justice Concentration. BSU does not offer a bachelor's degree specifically focused on counterterrorism. **If approved, Capitol Technology University's B.S. in Counterterrorism will position its graduates to fill the burgeoning requirement for Counterterrorism managers and specialists in Maryland and the surrounding region.**

## **2. Provide justification for the proposed program.**

The proposed **B.S. in Counterterrorism program** is strongly aligned with the University's strategic priorities and is supported by adequate resources. The new **B.S. in Counterterrorism** degree will strengthen and expand upon existing technology degree programs at the University. In addition, classes in the **B.S. in Counterterrorism** program will be an option for all students as the field integrates well with the market needs of the University's other technical programs. The degree will present the opportunity for the study in a rapidly changing and highly complex discipline. As shown earlier in this proposal, our research shows there is a significant shortage of highly skilled counterterrorism professionals. This program helps fill the gap. There is a thorough discussion of the need in Sections Band C of this document.

## **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 HBIs.**

The university does not anticipate any impact on the implementation or maintenance of high-demand programs at HBIs. Coppin State University (CSU) offers a B.S. in the adjacent area of Criminal Justice; however, the degree has only one 400-level elective course on terrorism. CSU does not offer a bachelor's degree specifically focused on counterterrorism. Bowie State University (BSU) offers a B.S. and B.A. in the adjacent area of Criminal Justice, too; however, the program only offers one optional 400-level class on terrorism and one optional 400-level class on global security within its Social Justice Concentration. BSU does not offer a bachelor's degree specifically focused on counterterrorism. **Capitol Technology University's proposed degree is different; Capitol Technology University's B.S. in Counterterrorism is focused on the narrow area of counterterrorism.**

## **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.**

The university does not anticipate any impact on the uniqueness, institutional identities, and missions of HBIs. Coppin State University (CSU) offers a B.S. in the adjacent area of Criminal Justice; however, the degree has only one 400-level elective course on terrorism. CSU does not offer a bachelor's degree specifically focused on counterterrorism. Bowie State

University (BSU) offers a B.S. and B.A. in the adjacent area of Criminal Justice, too; however, the program only offers one optional 400-level class on terrorism and one optional 400-level class on global security within its Social Justice Concentration. BSU does not offer a bachelor's degree specifically focused on counterterrorism. **Capitol Technology University's proposed degree is different; Capitol Technology University's B.S. in Counterterrorism is focused on the narrow area of counterterrorism.**

**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 program was established through a rigorous review of unmet needs by the University's New Programs Group. The group includes selected representation from the faculty, administrators, and the University's Executive Council. A diverse group of faculty will oversee the program; the faculty have backgrounds in counterterrorism, intelligence, critical infrastructure, aviation, unmanned and autonomous systems, astrophysics, aeronautical engineering, electrical engineering, mechanical engineering, cybersecurity, computer science, technology, and mathematics. Please see Section I for a detailed list of the faculty's backgrounds.

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

*Educational Objectives:*

- a. Students will critically analyze problems in a variety of disciplines and synthesize relevant information to support the attainment of desired outcomes in counterterrorism.
- b. Students will identify, formulate, and solve complex counterterrorism problems by selecting and applying appropriate tools and techniques.
- c. Students will identify weaknesses in modern terrorism processes, communications, methods, planning, finances, and decision-making in order to develop optimum solutions.
- d. Students will conceptualize, apply and integrate effective strategies in the counterterrorism decision-making process.
- e. Students will evaluate executive decisions in the context of the modern terrorism threat environment to determine the potential impact on resources and desired outcomes.
- f. Students will evaluate the legal, social, economic, environmental, and global ramifications of decisions within counterterrorism.

*Learning Outcomes:*

Upon graduation:

- a. Graduates will critically analyze problems within counterterrorism, synthesize the relevant information, and formulate solutions to attain desired outcomes.
- b. Graduates will demonstrate highly developed traditional and technological techniques and skills in communicating ideas effectively and persuasively.
- c. Graduates will evaluate the legal, social, economic, environmental, and global ramifications of their actions and decisions within the counterterrorism environment.



- d. Graduates will integrate advanced knowledge of counterterrorism in the application of concepts, plans, processes, project management, and team leadership skills on the job.
- e. Graduates will identify, formulate, and solve complex counterterrorism problems by selecting and applying appropriate tools and techniques.
- f. Graduates will demonstrate modern, state-of-the-art knowledge of the impact of technology and technology-enabled operations on modern terrorism.

### **3. Explain how the institution will:**

#### **a) Provide for assessment of student achievement of learning outcomes in the program**

Capitol Technology University will assess student achievement of the learning outcomes per the regulations specified by the university's accreditation organization, Middle States Commission on Higher Education (MSCHE), and the International Association for Counterterrorism and Security Professionals (IACSP).

Under MSCHE, the university will use Standard V, Educational Effectiveness Assessment, of the Standards for Accreditation and Requirements of Affiliation. Standard V requires:

Assessment of student learning and achievement demonstrates that the institution's students have accomplished educational goals with their program of study, degree level, the institution's mission, and appropriate expectations for institutions of higher education.

(Source: <https://www.msche.org/?Nav1=About&Nav2=FAQ&Nav3=Question07>)

Per the MSCHE's accreditation requirements, Capitol Technology University will measure Standard V by using the following criteria:

An accredited institution possesses and demonstrates the following attributes or activities:

1. clearly stated educational goals at the institution and degree/program levels, which are interrelated with one another, with relevant educational experiences, and with the institution's mission;
2. organized and systematic assessments, conducted by faculty and/or appropriate professionals, evaluating the extent of student achievement of institutional and degree/program goals. Institutions should:
  - a. define meaningful curricular goals with defensible standards for evaluating whether students are achieving those goals;
  - b. articulate how they prepare students in a manner consistent with their mission for successful careers, meaningful lives, and, where appropriate, further education. They should collect and provide data on the extent to which they are meeting these goals;
  - c. support and sustain assessment of student achievement and communicate the results of this assessment to stakeholders;

3. consideration and use of assessment results for the improvement of educational effectiveness. Consistent with the institution's mission, such uses include some combination of the following:

- a. assisting students in improving their learning;
  - b. improving pedagogy and curriculum;
  - c. reviewing and revising academic programs and support services;
  - d. planning, conducting, and supporting a range of professional development activities;
  - e. planning and budgeting for the provision of academic programs and services;
  - f. informing appropriate constituents about the institution and its programs;
  - g. improving key indicators of student success, such as retention, graduation, transfer, and placement rates;
  - h. implementing other processes and procedures designed to improve educational programs and services;
4. if applicable, adequate and appropriate institutional review and approval of assessment services designed, delivered, or assessed by third-party providers; and
5. periodic assessment of the effectiveness of assessment processes utilized by the institution for the improvement of educational effectiveness.

(Source: <https://www.msche.org/publications/RevisedStandardsFINAL.pdf>)

The University will also use International Association for Counterterrorism and Security Professionals (IACSP) Certified Anti-Terrorism Officer (cATO™) Body of Knowledge and its related assessment tools to assess student achievement of the learning outcomes in the program. The cATO™ Body of Knowledge includes a wide spectrum of topics related to contemporary terrorism and the protection of facilities and the public against acts of terrorism. The following table provides a high-level view of the cATO™ Body of Knowledge:

## Certified Anti-Terrorism Officer (cATO™) Body of Knowledge

The cATO™ Body of Knowledge includes a wide spectrum of topics related to contemporary terrorism and the protection of facilities and the public against acts of terrorism. Following is a list of specific topic encompassing the cATO™ Body of Knowledge.

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Dynamics of Contemporary Terrorism               <ul style="list-style-type: none"> <li>◦ Target Selection Criteria</li> <li>◦ Categories of Terrorism Related Risk</li> <li>◦ Terrorist Planning and Execution Phases</li> </ul> </li> <li>• Threat: Explosive Attacks               <ul style="list-style-type: none"> <li>◦ Blast Dynamics</li> <li>◦ Characteristics of Explosives</li> <li>◦ Explosive Employment Methods and Terrorist Tactics</li> </ul> </li> <li>• Chemical &amp; Biological Terrorism               <ul style="list-style-type: none"> <li>◦ Strategic Use of CB Terrorism</li> <li>◦ Characteristics of CB Agents</li> <li>◦ Dissemination of CB Agents</li> <li>◦ CB Employment Methods and Terrorist Tactics</li> </ul> </li> <li>• Risk Management &amp; Anti-Terrorism Planning               <ul style="list-style-type: none"> <li>◦ Risk Management Principles</li> <li>◦ Risk Assessment for Anti-Terrorism Applications</li> </ul> </li> <li>• Operations Security (OPSEC) &amp; Protective Counterintelligence               <ul style="list-style-type: none"> <li>◦ Terrorist Intelligence Requirements</li> <li>◦ Terrorist Intelligence Collection Methods</li> <li>◦ Protective Counterintelligence/OPSEC                   <ul style="list-style-type: none"> <li>▪ Information Security</li> <li>▪ Employee / Contractor Screening &amp; Monitoring</li> <li>▪ Surveillance Detection</li> <li>▪ Suspicious Activity Investigation, Reporting, &amp; Analysis</li> </ul> </li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>◦ Emergency Exit and Escape Planning</li> <li>◦ Physical Protection System Analysis</li> <li>◦ Access Control               <ul style="list-style-type: none"> <li>▪ Entrant Verification Methods</li> <li>▪ Entry Screening Technologies</li> <li>▪ Vehicle Search Techniques</li> </ul> </li> <li>• Threat-Specific Proactive and Mitigative Measures               <ul style="list-style-type: none"> <li>◦ Obscuration and Protection Against Projected Charges</li> <li>◦ Chemical &amp; Biological Attack Risk Mitigation                   <ul style="list-style-type: none"> <li>▪ Food and Beverage Protection</li> <li>▪ Water Filtration</li> <li>▪ HVAC System Protection</li> </ul> </li> <li>◦ IEMI Protection</li> <li>◦ Unmanned Aerial Vehicle Countermeasures</li> <li>◦ Blast Mitigation &amp; Facility Design                   <ul style="list-style-type: none"> <li>▪ Blast Mitigation Strategies</li> <li>▪ Blast Walls</li> <li>▪ Structural Design</li> <li>▪ Façade Construction &amp; Fenestration</li> <li>▪ Emergency Access &amp; Evacuation Requirements</li> <li>▪ Protection of Building Subsystems</li> </ul> </li> </ul> </li> <li>• Mail Security               <ul style="list-style-type: none"> <li>◦ Mail Security Planning</li> <li>◦ Mail Screening Procedures</li> <li>◦ Mail Screening Technology</li> <li>◦ Response to Hazardous Mailings</li> </ul> </li> <li>• Emergency Management and Response to Terrorist Incidents               <ul style="list-style-type: none"> <li>◦ Incident Command Systems</li> <li>◦ Communications Systems and Infrastructure</li> <li>◦ Active Shooter / Marauding Terrorist Firearms Attack (MTFA) Response</li> <li>◦ Bomb Threat Response</li> <li>◦ Suspicious Vehicle Response</li> <li>◦ Post-Blast Response</li> <li>◦ Chemical &amp; Biological Attack Response</li> </ul> </li> </ul> |
| <ul style="list-style-type: none"> <li>• Physical Security &amp; Entry Control               <ul style="list-style-type: none"> <li>◦ Physical Protection System Design Principles</li> <li>◦ Intrusion Detection Systems</li> <li>◦ Surveillance</li> <li>◦ Barrier Technology                   <ul style="list-style-type: none"> <li>▪ Anti-Personnel Barriers</li> <li>▪ Ballistic Barrier Technology</li> <li>▪ Vehicle Barriers</li> </ul> </li> </ul> </li> </ul>   |  |

(Source: <https://catocertification.org/bok.php>)

All students of the proposed **B.S. in Counterterrorism** will be immediately eligible upon graduation to take the International Association for Counterterrorism and Security Professionals (IACSP) Certified Anti-Terrorism Officer (cATO™) Certification Examination and to testify their compliance with cATO™ Character Standards. The following table is the cATO™ Character Standards.

## Certified Anti-Terrorism Officer (cATO™) Character Standards

The following standards are promulgated to ensure conduct by individuals designated by the Certified Anti-Terrorism Officer (cATO™) credential does not reflect adversely upon the profession or the cATO™ designation. The following cATO™ Character Standards also provide notice to individuals pursuing cATO™ certification that certain conduct would bar certification, or require an individual to petition the Certifying Board of the International Association for Counterterrorism and Security Professionals for consideration.

### **Unacceptable Conduct**

The following conduct is unacceptable and will always bar an individual from certification. If an individual was previously awarded certification, the following conduct will result in automatic revocation of the cATO™ designation.

- Conviction of any crime classified as a Felony or equivalent under the laws in the individual's country of residence, including any crime punishable by one year or more of imprisonment.
- Membership, support, or affiliation (outside the context of official government business) with any group, or members of any group, designated as a 'terrorist organization' by the European Union or the governments of Israel, the United Kingdom, and the United States. List.
- Support or advocacy, in any form, for actions that may predictably cause death or serious bodily harm to civilians or non-combatants with the purpose of intimidating a population or compelling a Government or an international organization to do or abstain from doing any act.

### **Other Unethical Conduct**

Other ethical matters that may reflect adversely upon the profession or the cATO™ credential will be reviewed by the Certifying Board of the International Association for Counterterrorism and Security Professionals after the candidate has successfully demonstrated completion of the education and experience requirements for certification. If an individual was previously awarded certification, conduct deemed unethical will result in suspension of the cATO™ designation until the matter is investigated and adjudicated by the Certifying Board of the International Association for Counterterrorism and Security Professionals.

Additional circumstances that may invoke presumptive suspension of the cATO™ designation include dishonorable discharge from military service, disbarment from legal practice, revocation of another license or certification for reasons of ethical violation, felony arrest, and allegations of illegal activity deemed credible by the Certifying Board of the International Association for Counterterrorism and Security Professionals.

(Source: <https://catocertification.org/character.php>)

### **b) Document student achievement of learning outcomes in the program**

The University will document student achievement of the learning outcomes in the program in the same fashion as its current programs. The University will also publicly post the results of the assessment on its website.

#### **4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements.**

*Program description, as it will appear in the catalog:*

The **Bachelor of Science (B.S.) in Counterterrorism** degree program is designed to meet the long-standing needs of governments to combat terrorism in all of its various forms. The **B.S. in Counterterrorism** program provides undergraduate-level education where the latest counterterrorism concepts are reviewed, analyzed and put into the framework with of the modern terrorist threat. Throughout the program, the latest strategies, tactics, laws and policy decisions in the prevention of terrorism are explored and applied to real-world challenges. Students will learn the best methods and techniques to deal with the expanded landscape of opportunities for terrorists to collaborate, to radicalize individuals, to create threats, to plan attacks of violence, and execute terrorist operations.

*Description of program requirements:*

*Entrance requirements:* Students must be accepted in to the University in order to be accepted in to the program.

*Degree Requirements:* The following is a list of courses for the **B.S. in Counterterrorism** degree. Students expecting to complete this degree must meet all prerequisites for the courses listed below.

**Bachelor of Science in Counterterrorism  
Courses  
Total Credits: 120 Credits**

***COUNTERTERRORISM CORE COURSES – 33 CREDITS***

**CRT-101 Nature of Conflict (3 credits)**

This course examines armed conflict as a transformational force in world history. The course covers the causes of armed conflict and the violent use of power as well as the technological, social, and political outcomes. Students will evaluate the origins of armed conflict from key points in early civilization up to the present. The course will cover the role of terrorism and asymmetric warfare in armed conflict. Prerequisites: None.

**CRT-102 Terrorism (3 credits)**

This course will introduce the student to the history of terrorism up to the present day. Students will examine the causes of terrorism, capabilities and limitations of terrorist groups, effective counterterrorism responses, and the future prospects of terrorism. Students will be able to identify the organization, objectives, and methodologies of key terrorist groups operating around the globe. Prerequisites: CRT-101.

**CRT-201 Islam in the Modern World (3 credits)**

The course covers the origins, history, and contemporary relevance of Islam in thought, ideas, politics, and military affairs. The course examines the life and teaching of the Prophet Muhammad, the Quran. Students will explore the early history and territorial expansion of the Umayyads, Abbasids, major sectarian splits, Sharia and the Orthodox Tradition, Sufism, and Sultanates. The course also explores the impact of Western colonialism, orthodox reaction, Iranian Revolution, Islamism, neo-Wahabbism (Al-Qaida), and jihadi movements in Afghanistan, Balkans, Caucasus, Philippines, and Kashmir. Prerequisites: None.

**CRT-202 Conventional and Improvised Explosive Devices**

The course covers conventional bombs and improvised explosive devices within the context of terrorism. The course covers the strategic and tactical use of conventional bombs and improvised explosive devices for the terrorist. Students will be able to identify all aspects of a conventional bomb and improvised explosive device, including appearance, usage, parts, functions, fail-safe devices, effective kill radius, etc. Students will also examine the characteristics of bombmaking and improvised explosive device locations. Prerequisite: CRT-102.

**CRT-203 Chemical, Biological, Radiological, and Nuclear Weapons (3 Credits)**

The course introduces chemical, biological, radiological and nuclear (CBRN) weapons within the context of terrorism. The course covers the strategic and tactical use of CBRN weapons for the terrorist. Students will be able to identify CBRN delivery systems, agents, symptoms,



containment methods, and treatment regimen. Students will also be able describe the strengths and weaknesses of non-proliferation efforts up to the present day. Prerequisite: CRT-202.

**CRT-301 Terrorist Operations (3 Credits)**

The course examines the tactics, techniques, and procedures employed by terrorist groups. Students will be able to identify the acquisition of financing, logistics, support networks, weapons, and explosive materials. The course covers the roles within an operations cell and the logistics chain prior to, during, and after an attack. Students will be able to identify surveillance techniques, infiltration, exfiltration, social media exploitation, support groups, and post-operations rewards. Prerequisite: CRT 202.

**CRT-302 Terrorist Threat Assessments (3 Credits)**

The course covers threat assessments as applied to terrorists. Students will understand, dissect, evaluate, and create threat assessments on terrorist groups and potential targets based on available information and as events unfold. The course will learn to assess a terrorist group's capabilities, intentions, targets, and ability to conduct operations. Prerequisite: CRT-301

**CRT-401 Homegrown Violent Extremists (3 Credits)**

Homegrown violent extremists present a terrorist threat to the United States. This course will cover the different types of homegrown violent extremists, their casualties and damage, and societal effects. Students will examine the similarities and differences between homegrown violent extremists and terrorist groups originating outside of the United States. Prerequisite: CRT-301.

**CRT-402 Violent Ethno-supremacist and Ultranationalist Groups (3 Credits)**

The course covers the violent ethno-supremacist and ultranationalist groups in Europe that employ violent tactics. Students will examine how violent ethno-supremacist and ultranationalist groups cooperate against immigration in Europe and a perceived Islamization of the Europe as a whole. Students will also gain knowledge how the violent ethno-supremacist and ultranationalist groups in Europe pose a potential threat to U.S. and allied interests. Prerequisite: CRT-301.

**CRT-457 Counterterrorism Senior Project I (3 credits)**

Students/teams select a project area, develop an understanding of the project scope that includes research and documentation of related work, prepare a feasibility study, develop project requirements, propose solutions/designs, analyze proposed solutions/design, select a final proposed solution/design, and prepare and present a preliminary solution/design review. Students are expected to apply proper counterterrorism concepts and project management to their work. Additional components may be required in some projects. Students/teams submit a final report at the end of the semester. Prerequisite: Senior standing.

**CRT-458 Counterterrorism Senior Project II (3 Credits)**

This is the counterterrorism capstone course designed to challenge students as they work individually or in small teams on a counterterrorism problem requiring technical expertise and aviation acumen. Drawing upon the course in technical report writing, students are required to submit a major report outlining and analyzing a counterterrorism problem and proposing solutions.\*Note: Course must be completed with a grade of "C" or higher to meet undergraduate graduation requirements. CRT-457 should be taken immediately before this course. Prerequisites: CRT-457.

### ***INTELLIGENCE COURSES – 3 CREDITS***

#### **INT-101 Introduction to Global Security and the Intelligence (3 Credits)**

This course introduces the areas of Global Security and Intelligence Studies. The course focuses on the areas of intelligence and intelligence collection. In this course, students will learn the role, purpose, and history of intelligence as well as U.S. congressional oversight. The course will also introduce students to modern U.S. foreign policy, intelligence collections and analysis, security of facilities, personnel security, law enforcement, and forensic science. The course will explore the importance of technology and non-technological methods in global security and intelligence.

Prerequisite: None.

### ***LANGUAGE COURSES – 3 CREDITS (STUDENTS SELECT ONE OF THE FOLLOWING COURSES)***

#### **HU-121 Arabic I (3 Credits)**

This course focuses on speaking, reading, writing, and comprehension of Modern Standard Arabic. The course develops Arabic reading and writing skills. The course introduces all 28 letters of the alphabet plus the 112 variations. Students learn Arabic grammar and vocabulary usage. Students learn the morphology of verbs and their grammatical constructions. There will be significant practice in pronunciation, conversations, listening comprehension, sentence structures, and writing during class. Prerequisite: None

#### **HU-131 Chinese I (3 Credits)**

The course will cover an introduction to the Mandarin Chinese language, basic grammar, Pinyin system, vocabulary, usage, and the Chinese writing system. It will also develop an understanding of modern China and knowledge of the Chinese culture. There will be significant practice in pronunciation, conversations, listening comprehension, sentence structures, and writing during class. Prerequisite: None.

### ***CRITICAL INFRASTRUCTURE COURSES – 9 CREDITS***

#### **CRI-210 Critical Infrastructure I (3 Credits)**

This course will introduce participants to the key terms, policy, guidance, and preparedness efforts required to safeguard the Nation's critical infrastructure. Students will learn relevant policy and guidance, discuss the risk management framework, describe Federal critical infrastructure security and resilience and information sharing programs, and relate critical infrastructure programs to individual actions. Primary focus will be on incorporating Critical Infrastructure protection in to construction of facilities in six of the sixteen critical infrastructure sectors: chemical facilities, commercial (e.g., retail, entertainment, lodging), communications facilities, critical manufacturing facilities, dams, and energy facilities. Students will complete hands-on Critical Infrastructure projects related to the construction of those types of facilities.

Prerequisite: None.

#### **CRI-310 Critical Infrastructure II (3 Credits)**

The national and economic security of the United States depends on the reliable functioning of critical infrastructure. This course examines collaboration efforts among the entities responsible for constructing physical and cybersecurity protection as well as the development of integrated risk management strategies for our Nation's critical infrastructure. Primary focus will be on incorporating Critical Infrastructure protection in to construction and renovation of facilities in

five of the sixteen critical infrastructure sectors: Defense industrial facilities, emergency services facilities, financial services facilities, government facilities, and public healthcare facilities. Students will complete hands-on Critical Infrastructure projects related to the construction and renovation of those types of facilities. Prerequisite: CRI-210.

**CRI-410 Critical Infrastructure III (3 Credits)**

This course will explore how threats, vulnerabilities, and consequences determine risk as it relates to the protection of Critical Infrastructure. Primary focus will be on incorporating Critical Infrastructure protection in to construction of facilities in five of the sixteen critical infrastructure sectors: food and agriculture facilities, Information Technology facilities, nuclear facilities, transportation facilities, and water/wastewater facilities. Students will complete hands-on Critical Infrastructure projects related to the construction, hardening, and recovery of those types of facilities. Prerequisite: CRI-310.

***CYBERSECURITY COURSES – 15 CREDITS***

**IAE-201 Introduction to Information Assurance Concepts (3 Credits)**

This course covers topics related to administration of network security. Topics include a survey of encryption and authentication algorithms; threats to security; operating system security; IP security; user authentication schemes; web security; email security protocols; intrusion detections; viruses; firewalls; Virtual Private Networks; network management and security policies and procedures. Laboratory projects are assigned as part of the homework requirements. This course prepares students for the (ISC)2 Systems Security Certified Practitioner (SSCP) Certification. Corequisites: MA-110 or MA-112 or MA-114 or MA-261.

**IAE-250 Comprehensive Computer and Network Security (3 Credits)**

Building on IAE-201, this course provides learners with detailed and hands-on knowledge of computer and network security. The course emphasizes current topics such as network security, compliance and operational security, threats and vulnerabilities, application security, access control, as well as cryptography. Additionally, underlying theory and concepts are presented in order to extend learners' understanding of computer and network security. Weekly laboratory exercises are utilized to reinforce practical, real-world security techniques. Classes are a mixture of lecture, current event discussions, and laboratory exercise review and will prepare learners for the CompTIA Security+ certification. (\*FORMERLY IAE-301) Prerequisite: IAE-201.

**IAE-311 Mobile Computing Security (3 Credits)**

Emphasizing wireless computing security, this course addresses how to secure mobile wireless computing devices and applications and wireless network security as it impacts those portable computing devices. Wireless network security is discussed as it pertains to decisions on which network security works best with particular applications loaded into wireless computing devices. The course covers security of CMRS and PCS (Cellular Mobile Radio Service and Personal Communications Service), CMRS and PCS second, third and fourth generations (2G, 3G and 4G), laptops equipped with Wireless Network Interface Cards (WNICs), Personal Digital Assistants (PDAs), Bluetooth and Zigbee devices and "Radio Frequency Identity (RFID) devices. Retail store security and proximity payment application security are also discussed. Note: students are required to purchase a mobile device specifically to fulfill course lab requirements. Prerequisite: IAE-250 (\*FORMERLY IAE-301).

**IAE-320 Mobile Device Forensics (3 Credits)**

Mobile device forensics is a branch of digital forensics relating to recovery of digital evidence or data from a mobile device under forensically sound conditions. The scope of devices can include mobile phones and any digital device that has both internal memory and communication ability, including PDA and GPS devices and tablet computers. This course focuses on the forensic study of mobile devices due to the rapid proliferation of smartphones and applications such as contacts, photos, calendars and notes, SMS and MMS messages, video, email, web browsing information, location information, and social networking. This increased usage has also seen a marked increase in cybercrime involving smartphones. Students will learn how to perform the forensic examination of mobile devices using the most advanced tools available. Note: Students are required to purchase a mobile device specifically to fulfill course lab requirements. Prerequisite: IAE-250 (\*FORMERLY IAE-301) and IAE-311.

**IAE-351 Intro to Cyber Network Operations (3 Credits)**

Full spectrum information superiority and dominance is key to influencing operations associated with war or Military Operations Other Than War (MOOTW). This survey of Computer Network Operations (CNO) introduces the concept of how Computer Network Attack (CNA), Computer Network Defense (CND) and Computer Network Exploitation (CNE) are leveraged to collect information, disrupt, deny, degrade or destroy the information within computers and computer networks and/or the computers/networks that host them. Strategic and operational considerations will be considered to affect an adversary's decision cycles with information superiority. Prerequisite: IAE-250.

***UNMANNED AND AUTONOMOUS SYSTEMS – 10 CREDITS*****UAS-101 Intro to Unmanned and Autonomous Systems (3 Credits)**

This course presents an introduction to Unmanned and Autonomous Systems operations. This includes a historical perspective and background information of this system including its: modeling and control fundamentals, ground based systems, visual and electro-optical aspects of navigation, obstacle and terrain avoidance systems, modular on-board processing systems, and current applications. This course also exposes students to the significant regulations impacting unmanned systems operations. Prerequisite: None.

**UAS-102 Mechanics of Unmanned and Autonomous Systems (3 credits)**

This course will provide the student an understanding of the component systems common to most Unmanned and Autonomous Systems with an emphasis on effective integration and operations. The course focuses on the core technologies and includes examinations of the control systems, power plants (motors), servos/actuators, power sources, and communication technologies utilized in unmanned systems. Prerequisite: None.

**UAS-120 UAS Operator Certification (4 credits)**

The course will develop the student's knowledge and skills that are needed to safely exercise the privileges and responsibilities of a Private Pilot. Course content includes instruction in aerodynamics, aircraft systems, FAA regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic flight physiology, and flight safety. The student must complete the appropriate flight lessons to satisfactorily complete the course. This course will develop the student's knowledge and skill needed to manage and operate small-unmanned aircraft systems.

Course content includes Federal Aviation Regulations, airspace authorization criteria, and operational approval requirements. Mission employment skills will be acquired through both classroom and hands-on flight activities. Flight activities will include launch and recovery operations, emergency procedures, plus mission planning and execution. Students must complete the appropriate UAS flight lessons to satisfactorily complete the course. Prerequisite: None

### ***GENERAL EDUCATION – 47 CREDITS***

#### **BUSINESS COURSES – 3 CREDITS**

##### **BUS-174 Introduction to Business and Management (3 Credits)**

This course presents a survey of the general business and management environment. Topics include an introduction to the various forms of business, organizational structure, and their legal implications. Modern management and supervision concepts, history and development of theory and practice, the roles of managers, and the relationship between manager and employee are examined. This is a seminar course with emphasis on class discussion and collaborative learning. Prerequisite or Corequisite EN-001 or EN-101.

#### **MATH AND SCIENCE COURSES – 23 CREDITS**

##### **CS-100 Computer Science: Introduction to Programming Logic (3 Credits)**

This course will introduce students to the various techniques used in programming logic. The purpose of this course is to build baseline skills in the building of logic for procedural and object oriented programming with minimal coding but with an in-depth approach to design. This course is an excellent choice for programming beginners that want to obtain a good foundation to program in various languages using various programming approaches. Corequisite: CS-101. Prerequisite: None.

##### **CS-101 Computer Science: Intro to Programming Logic Lab (1 Credit)**

This course is a one-credit lab for students enrolled in CS-100. Students will complete mini projects at the intermediate and advanced level in the lab based on CS-100 lecture concepts. Assignments are individual efforts. Corequisite: CS-100. Prerequisite: None.

##### **CS-130 Computer Science: Intro to Programming Using Java (3 Credits)**

Introduces students to the discipline, methodologies, and techniques of software development. The emphasis is on developing essential programming skills, an understanding of object-oriented design and good software engineering practices using the Java programming language. Program constructs include selection, looping, arrays, graphical output of data, the use of the standard Java class library, and construction of simple user-defined classes. Programming projects are assigned as part of the homework requirements. Prerequisite: MA-110. MA-112 or MA114.

##### **MA-112 Intermediate Algebra (3 Credits)**

Designed for students needing mathematical skills and concepts for MA-114 and MA-216. In this course students are introduced to equations and inequalities and learn the language of algebra and related functions, including polynomial, rational, exponential and logarithmic functions. Other topics include solving equations, inequalities and systems of linear equations; performing operations with real numbers, complex numbers and functions; constructing and analyzing graphs of functions; and using mathematical modeling to solve application problems. Prerequisite: MA-005 or placement test score.



**MA-114 Algebra and Trigonometry (4 Credits)**

Designed for students needing mathematical skills and concepts for MA-216; topics in this course are as follows. Algebra: basic operations on real and complex numbers, fractions, exponents and radicals. Determinates. Solution of linear, fractional, quadratic and system equations.

Trigonometry: definition and identities, angular measurements, solving triangles, vectors, graphs and logarithms. Prerequisite: MA-112 or placement test score.

**MA-128 Introduction to Statistics (3 Credits)**

Probability: definitions, theorems, permutations and combinations. Binomial, hypergeometric, Poisson and normal distributions. Sampling distribution and central limit theorem, estimation and hypothesis testing. Prerequisite: MA-110, or MA-111, or MA-112.

**CH-120 Chemistry (3 Credits)**

Metric system and significant figures; stoichiometry; fundamental concepts of atomic structure and its relationship to the periodic table; electron configuration; bonds and electronegativity; gases; oxidation states and redox; solutions, acids and bases, changes of state, thermodynamics, chemical kinetics and equilibrium. Prerequisite: MA-114.

**PH-201 General Physics I (3 Credits)**

Non calculus-based physics intended for credit in engineering technology courses. Mechanics: units, conversion factors: vector diagrams, translational equilibrium, friction, torque and rotational equilibrium: uniformly accelerated motion, projectiles: Newton's Law, work energy and power: kinetic and potential energy, conservation of energy: impulse and momentum. Heat: temperature scales, thermal properties of matter, heat and temperature change, heat and change of phase, physics of heat transfer; applications. Prerequisite: MA-114.

**ENGLISH, HUMANITIES, AND SOCIAL SCIENCE COURSES - 21 CREDITS****EN-101 English Communications I (3 Credits)**

This introductory college-level course focuses on effective oral and written communication skills and the development of analytical abilities through various reading and writing assignments. Students must demonstrate competence in writing mechanics, including grammar, sentence structure, logical content development, and research documentation through 2 essays and 2 research papers. Rhetorical modes may include description, comparison/contrast, narrative, and process analysis. Students are expected to develop effective oral communication skills through speeches. Group projects will develop effective team skills such as decision-making, time management, and cooperation. Prerequisites: acceptance based on placement test scores.

**EN-102 English Communications II (3 Credits)**

This sequel to EN-101 involves more sophisticated reading, writing, speaking, and research assignments. Students must demonstrate competence in writing mechanics, as well as advanced research skills, the ability to handle complex information, and effective team skills. Students write research papers: an information paper, a cause-and-effect paper, an argument paper, and a final research paper. Course includes group work. Presentations are required. Prerequisite: EN-101.

**HU-331 Arts and Ideas (3 Credits)**

This course enables students to study and appreciate various forms of art, including painting, sculpture, architecture, music, drama, film, and literature through in-class and on-site experiences. The arts are also surveyed from an historical perspective, focusing primarily on eras

in Western civilization. This enables students to sense the parallel development of the arts, of philosophy, and of sociopolitical systems and to recognize various ways of viewing reality. Prerequisite: EN-102.

**Humanities Elective #1 (3 Credits)**

**Humanities Elective #2 (3 Credits)**

**SS-351 Ethics (3 Credits)**

This course is designed to help students improve their ability to make ethical decisions. This is done by providing a framework that enables the student to identify, analyze, and resolve ethical issues that arise when making decisions. Case analysis is a primary tool of this course. Prerequisite: EN-102.

**Social Science Elective (3 Credits)**

**5. Discuss how general education requirements will be met, if applicable.**

The general education requirements meet or exceed the specifications in The Code of Maryland Regulations (COMAR). Please see Section G.4 to review the general education requirements for the proposed degree.

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

The program will be accredited regionally by Middle States Commission on Higher Education (MSCHE) Middle States Commission on Higher Education (MSCHE) and will meet the certification training requirements of the International Association for Counterterrorism and Security Professionals (IACSP) Certified Anti-Terrorism Officer (cATO™) program. All students of the proposed **B.S. in Counterterrorism** will be immediately eligible upon graduation to take the IACSP cATO™ Certification Examination and to testify their compliance with IACSP cATO™ Character Standards.

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

The University will not be contracting with another institution or non-collegiate organization for this degree.

**7. 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.**

The **B.S. in Counterterrorism** 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.

Curriculum, course, and degree information will be available on the University website and via e-mail as well as regular mail (by request). The expectations on faculty/student interaction are available to students during virtual open house events, literature, website, etc. In addition, this information is part of the material distributed for each course. Students receive guidance on proper behavior/interaction with professors, in the on-ground classroom, and in the online environment to facilitate a high-level learning experience. Technology competence and skills and technical equipment requirements are part of the material distributed for each course. The technical equipment requirements are also listed on our website and provided to students in the welcome package.

The University's academic support services, financial aid resources, costs and payment policies, Learning Management System, are covered in the University Open Houses, application process, Welcome Aboard process, Orientation, Student Town Halls, and individual counseling.

- 7. 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 **B.S. in Counterterrorism** program's advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available. The material for every new degree program is derived from the new program proposal approved by the Maryland Higher Education Commission.

#### **H. Adequacy of Articulation:**

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

This program does not have articulation partners currently. However, it is expected that articulation for the program will work as it does for the University's current degrees. The University is very active with its transfer partners throughout the state and beyond. The goal of the University is to work with partners to make transfer as seamless as possible and to maximize the number transfer credits (as allowable). There are dedicated transfer student personnel to guide this process.

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

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

All faculty listed below have been engaged with the University for at least one year. Dr. Antunes, Prof. LtCol. Ashmall, Dr. Bajracharya, Dr. Bajwa, Dr. Baker, Prof. Burke, Dr. Butler, Prof. P. Opeka are fulltime faculty members. The University has reviewed the resumes and curriculum vitae of all faculty have reviewed and each one is deemed professionally qualified to teach their

courses at this level. The University leadership is confident in the quality of the faculty and their abilities to provide a learning environment supportive of the University goals for student success. Additional doctorally-qualified faculty will be added as needed.

Instructors who will be engaged with the **B.S. in Counterterrorism** are:

| INSTRUCTOR   | BACKGROUND   | COURSES ALIGNED TO BE TAUGHT  |
|--|--|---|
| Dr. Alex Antunes<br>Full time                          | Ph.D. Computational Astrophysics<br>M.S. Astronomy<br>B.S. Astronomy and Physics   | All PH courses  |
| Prof. Lt. Col. Soren Ashmall, USMC (Ret.)<br>Full time | Ph.D. Technology (anticipated Dec 2020)<br>M.A. Broadcast Journalism<br>B.A. Theatre<br>MOS 0202 Intelligence Officer<br>MOS 2602 Signals Intelligence Officer/Ground Electronic Warfare Officer MOS 0202 Intelligence Officer<br>MOS 2602 Signals Intelligence Officer/Ground Electronic Warfare Officer<br>MOS 3450 Planning, Programming, & Budget Systems Officer<br>MOS 8055 Information Management Officer<br>Licensed Real Estate Agent/REALTOR<br>Facilities Security Officer, National Industrial Security Program (NISP) | BUS-174<br>All CRT and INT Courses<br>All Liberal Arts and HU Courses<br>EN-101<br>EN-102 |
| Dr. Garima Bajwa<br>Full time                          | Ph.D. Computer Science and Engineering<br>M.S. Electrical and Computer Engineering<br>B.S. Electronics and Communication Engineering   | All CS Courses  |
| Dr. Chandra Bajracharya<br>Full time                   | Ph.D. Electrical and Computer Engineering<br>M.S. Applied Computing<br>M.S. Electrical Power Engineering<br>B.E. Electrical Engineering  | All CS courses  |
| Dr. Hasna Banu<br>Adjunct                              | Ph.D. Theoretical Physics<br>M.S. Mathematics<br>B.S. Mathematics  | All MA Courses  |
| Dr. Richard Baker<br>Full time                         | Ph.D. Information Systems<br>M.S. Computer Science<br>B.S. Mathematics<br>F-4 Weapons Systems Officer<br>Private Pilot   | All IAE, CS and CM courses  |
| Dr. Malcolm Beckett<br>Adjunct                         | D.B.A. Quality Systems Management in Homeland Security and Defense<br>M.S. Information Systems Management<br>B.S. Criminal Justice<br>CISSP<br>PMP   | CS-100, CS-101, and CS-130  |

|                                 |   |  |
|---------------------------------|---|--|
| Dr. William Butler<br>Full-time | D.Sc. Cyber Security<br>M.S. Strategic Studies<br>B.S. Computer Science<br>NSTISSI No. 4011<br>CNSSI No. 4012<br>NSTISSI No. 4015<br>CNSSI No. 4016   | All IAE and CS courses                                 |
| Dr. Jami Carroll<br>Adjunct     | D.Sc. Cybersecurity<br>M.S. Network Security<br>M.B.A.<br>B.B.A.  | IAE-201, IAE-301, IAE-321<br>All BUS courses           |
| Dr. Emily Darraj<br>Adjunct     | D.Sc. Cybersecurity<br>M.S. E-Commerce Security<br>B.A. Liberal Arts, English<br>CICISO   | All CS Courses   |
| Dr. George Ford<br>Adjunct      | Ed.D. Educational Leadership<br>M.E. Environmental Engineering<br>M.B.A.<br>B.S. Mechanical Engineering<br>Professional Engineer (P.E.)   | CRI-210, CRI-310, CRI-410                              |
| Dr. Raymond Letteer<br>Adjunct  | D.Sc. Cyber Security<br>M.S. Network Security/Information Assurance<br>B.A. Political Science<br>A.A.S. Communications Technology   | IAE-201, IAE-301, IAE-321<br>CRI-210, CRI-310, CRI-410 |
| Prof. Sam Morgan III<br>Adjunct | M.S. Aerospace, Aeronautical, & Astronautical<br>Engineering<br>B.G.S. General Studies<br>MQ-1 Predator Pilot<br>MQ-9 Reaper Instructor Pilot<br>A-10 Instructor/Evaluator Pilot<br>F-16 Maintenance Officer<br>Military Pilot (T-37, T-38) | All AVT and UAS Courses                                |
| Dr. Mark Moss<br>Adjunct        | Ph.D. Computer Science<br>M.S. Computer Science<br>B.S. Mathematics   | All CS Courses   |
| Prof. Pamela Opeka<br>Full time | M.Ed. Curriculum and Instruction<br>B.S. Biology and Chemistry  | MA-112, MA-114, MA-128 and<br>all CH Courses           |
| Prof. Mark Opeka<br>Adjunct     | Ph.D. Materials Engineering<br>M.S. Materials Engineering<br>B.S. Mechanical Engineering  | All PH Courses   |

|                                  |  |                                    |
|----------------------------------|--|------------------------------------|
| Dr. Alexander Perry<br>Adjunct   | D.Sc. Cybersecurity<br>M.S. Applied and Computational Mathematics<br>B.S. Applied Mathematics<br>CISSP | All CS Courses<br>All Math Courses |
| Prof. Nathan Weideman<br>Adjunct | M.S. Astronautical Engineering<br>B.S. Professional Aeronautics  | All AVT Courses                    |

Additional doctorally-qualified faculty will also be added in the near future.

**ADDITIONAL JUSTIFICATION FOR KEY FACULTY:**

Capitol Technology University’s instructors for this program are leading experts in counterterrorism and supporting fields:

a. **Prof. LtCol. Soren Ashmall, USMC (Ret.)**

Prof. LtCol. Ashmall is a seasoned professor who has taught many of the Business, English, Humanities, and Social Science courses during his tenure at Capitol Technology University. In addition to his career in academia, Prof. LtCol. Ashmall has worked as a Senior Director of Business Development for General Dynamics Information Technology and in senior positions at other companies and U.S. government agencies. Prof. LtCol. Ashmall is an expert in terrorism, counterterrorism, intelligence, and signals intelligence. He retired as a Lieutenant Colonel from the United States Marine Corps in 2009 following over 21 years of continuous active duty service. He served as an Intelligence Officer and Signals Intelligence Officer during his military career. Prof. LtCol. Ashmall conducted operations worldwide in support of national and international missions. He held positions of increasing authority throughout his career, including service as a Vice Chairman, Commanding Officer, Executive Officer, Operations Officer, Officer-In-Charge, and Division Head multiple times at Headquarters, U.S. Marine Corps. He directed all resources and budgeting for Marine Corps Intelligence, regularly briefed U.S. Congressional Committees, directed all signals intelligence policy for the Marine Corps, led a large national event for the Marine Corps, and held fiscal responsibility for hundreds of millions of dollars during his military and civilian careers.

b. **Dr. Richard Baker**

Prior to joining Capitol Technology University, Dr. Baker served as the Chair of Indiana State University’s Department of Aviation Technology and the Director of Indiana State University’s Center for Unmanned Systems and Human Capital Development. Baker holds a bachelor’s degree in Mathematics and master’s degree in Computer Science from Indiana State University. He received his doctorate in Information Systems from Nova Southeastern University. Dr. Baker was instrumental in the successful launch of ISU’s Center for Unmanned Systems and directs the research and collaboration efforts with strategic partners. Dr. Baker brings many years of executive level experience in Information Technology (IT) from companies such as General Motors and Electronic Data Systems (EDS). Prior to entering the academic world, he also had extensive experience in the aviation industry. Dr. Baker served as the Director of Human Factors and Safety for American Airlines where his responsibilities included CRM and safety training for all pilots and flight attendants. He received professional certification in Risk Management from the Transportation Safety Institute. Dr. Baker retired as a Colonel from the Indiana National Guard in 2003 where he held command positions including Indiana State Director of Operations,

Indiana State Director of Support, 181st Fight Wing Support Group Commander, 181st Mission Support Squadron Commander, and 181st Chief of Supply. During his tenure with the Air Guard, he was a Weapons Systems Officer in the F-4 and worked extensively with airspace issues, rapid response teams for counter-terrorism, the Counterdrug Operations at United States Joint Forces Command, and was a trainer for the Air National Guard's Domestic Preparedness Operations. Dr. Baker also holds a private pilot's license, instruments rating, and multi-engine rating.

c. Prof. Gary Burke

Prof. Burke has forty years of experience either working in the facilities and construction industry and teaching related courses. He is a certified OSHA authorized construction trainer and managed his own residential construction company as a licensed general contractor for fourteen years where job site safety was part of his daily responsibility. He has also been a facilities management director. He is a full-time Associate Professor with Capitol Technology University with program oversight.

d. Dr. George Ford

Dr. Ford has a background of being a facilities manager for several manufacturing facilities. He also taught facilities management courses at Western Carolina University for a number of years. Dr. Ford is known for providing innovative real world projects in his facilities management classes.

e. Prof. Sam Morgan III

Prof. Morgan has served as the Director of Unmanned Systems and an Aviation Instructor at Indiana State University. Mr. Morgan has over 26 years of experience in aviation and unmanned systems. During his 24 years as a pilot in the United States Air Force, Mr. Morgan served as an A-10 Instructor/Evaluator Pilot, MQ-9 Reaper Instructor Pilot, MQ-1 Predator Pilot, F-16 Maintenance Officer, T-37/T-38 Pilot, Fight Safety Officer, Functional Check Flight Pilot, A-10 IP Flight Commander, Command Post Chief, Emergency Actions Controller, Airborne Jump-certified Battalion Air Liaison Officer, and Air Force ROTC Detachment Commander. He retired from active duty as a Colonel in the U.S. Air Force. Following his retirement from active duty, Mr. Morgan continued his work in aviation and unmanned systems as an instructor at Indiana State University.

f. Prof. Nathan Weideman

Prof. Weideman is professionally qualified given his significant years of experience and positions held in the aviation industry. He has served as an Aerospace Maintenance Duty Officer for the U.S. Navy for over the past 5 years. He also works with the Defense Threat Reduction Agency (DTRA) and U.S. Special Operations Command (USSOCOM) on aerospace issues for Counter Weapons of Mass Destruction (CWMD) efforts. His previous positions include directing Navy Reserve Aircraft Maintenance Modification and Overhaul for a C-130 squadron, Senior Technical Writer for Aviation, and Naval Analyst for Naval Aviation matters.

**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**

The primary pedagogy for faculty at Capitol Technology University is the Active Learning

model. The university believes strongly in a highly-interactive, thinking, and hands-on experience for students in each class to the maximum extent possible.

It was two Missouri State professors, historian Charles Bonwell and psychologist James Eison, who coined the term “active learning.” In their 1991 book on the subject, *Active Learning: Creating Excitement in the Classroom*, they offered this definition of the concept: “active learning involves students in doing things and thinking about the things they are doing.”

The definition, though it seems circuitous, marks a definitive pedagogical shift in college teaching and learning. Rather than think about what they are watching, hearing, or reading, students are first encouraged to be “doing” something in class, and then to apply critical thought and reflection to their own classroom work and activity. Their argument was backed up by research. Even Bligh, 20 years earlier, had pointed out that the immediate rehearsal of new information and knowledge had a significant impact upon learning.

This approach is as helpful in the sciences as it is in the arts or humanities: whether it’s organic chemistry, creative writing, or behavioral economics, concepts are all best understood through repeated practice and open, social exploration. The central tenet of active learning is that practice matters, and that classroom time is better spent giving students opportunities to work with concepts over and over, in a variety of ways and with opportunities.

The central tenet of active learning — that practice and interaction matters— can be applied across disciplines for immediate feedback, so that knowledge can take hold in their own minds.

(Source: Preville, P. *Active Learning: The Perfect Pedagogy for the Digital Classroom: An Essential Guide for the Modern Professor*)

All faculty receive regular periodic and recurring pedagogical training during the academic year. Those training sessions occur in a hybrid format – simultaneously live online and live on-ground in the classroom. The sessions are designed to reach all faculty, both fulltime and adjunct, in order to ensure all members receive the training. Additionally, the sessions are recorded for faculty who are unable to attend the live training session due to other professional commitments and who are teaching classes.

#### **b. The Learning Management System**

The Department of Online Learning and the instructional technology division support the online program needs of faculty and students. Those University organizations and the IT Help Desk provide constant and on-going support to the faculty. The Canvas is the University’s online Learning Management System. Canvas is paired with Zoom – an enterprise video conferencing system with real-time messaging and content sharing. When a new faculty member is assigned to teach an online course, the Department of Online Learning provides formal training for that instructor. New faculty are assigned an experienced faculty mentor to ensure a smooth transition to the online environment as well as to ensure compliance with the University’s online teaching



pedagogy. The University believes this approach provides the highest-level learning experience for the faculty member and, in turn, students attending online classes.

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

Faculty at Capitol Technology University receive training in Keller's ARCS Motivational Model and his associated strategies for distance education/online learning.

A model used in online delivery of teaching and learning to increase learner motivation is the Keller's ARCS motivational model. This model has been considered an important element in online education because of its implications on increased learner motivation and learning outcomes. The Keller's model consists of motivating students by maintaining and eliciting attention (A), such as virtual clinical simulations; making the content and format relevant (R), by modeling enthusiasm or relating content to future use; facilitating student confidence (C), by providing "just the right challenge"; and promoting learner satisfaction (S), by providing reinforcement and praise when appropriate. Examples of the Keller's model include increasing motivation including the arousal of curiosity of students, making the connection between learning objectives and future learning goals, autonomous thinking and learning, and fostering student satisfaction. Keller's ARCS model has been researched by various educational online programs to analyze student motivation and learning outcomes. The Keller's model serves as an example and guide for instructors to motivate and increase online engagement with their students as well as research purposes.

A qualitative study by Chan Lin investigated online student learning and motivation. Discussion boards, student projects, and reflection data were collected and analyzed from a 12-week web-based course. Respondents indicated the importance of online feedback from the instructor and peer modeling of course tasks to visualize learning progress. The study revealed using Keller's ARCS strategies fosters greater student online engagement by fostering self-efficacy and a sense of accomplishment.

In a mixed method study, assessing the use of Keller's ARCS on instructional design, the use of educational scaffolding fostered positive levels of student motivation. Relevancy, attention, confidence, and satisfaction were all common factors associated with student success in the course and course completion.

(Source: Pinchevsky-Font T, Dunbar S. Best Practices for Online Teaching and Learning in Health Care Related Programs. The Internet Journal of Allied Health Sciences and Practice. January 2015. Volume 13 Number 1.)

All faculty receive regular periodic and recurring training on evidence-based practices for distance education/online learning during the academic year. Those training sessions occur in a hybrid format – simultaneously live online and live on-ground in the classroom. The sessions are designed to reach all faculty, both fulltime and adjunct, to ensure all members receive the training. Additionally, the sessions are recorded for those faculty who are unable to attend the live training session due to other professional commitments or who are teaching classes at the training delivery time.

**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. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for library resources to meet the program's needs.**

*Library Services:* The Puente Library offers extensive services and a wide collection for Capitol Technology University students to be academically successful. Library resources are available digitally. The library also provides a mailing service for materials borrowed through the Maryland system. The library is currently supporting the following degrees at the undergraduate level: B.S. in Astronautical Engineering, B.S. in Business Analytics and Data Sciences, B.S. in Computer Engineering, B.S. in Computer Engineering Technology, B.S. in Computer Science, B.S. in Construction Management and Critical Infrastructure, B.S. in Cyber Analytics, B.S. in Cybersecurity, B.S. in Electrical Engineering, B.S. in Electrical Engineering Technology, B.S. in Engineering Technology, B.S. in Facilities Management and Critical Infrastructure, B.S. in Management of Cyber and Information Technology, B.S. in Mechatronics Engineering, B.S. in Mechatronics and Robotics Engineering Technology, B.S. in Mobile Computing, B.S. in Software Engineering, and B.S. in Technology and Business Management, and B.S. in Unmanned and Autonomous Systems. The library is currently supporting the following degrees at the graduate level: M.S. in Aviation, M.S. in Aviation Cybersecurity, M.S. in Computer Science, M.S. in Critical Infrastructure, M.S. in Cyber Analytics, M.S. in Cybersecurity, M.S. in Engineering Technology, M.S. in Information Systems Management, M.S. in Internet Engineering, M.S. in Unmanned and Autonomous Systems Policy and Risk Management, M.B.A., T.M.B.A. Business Analytics and Data Science, T.M.B.A. in Cybersecurity, D.Sc. in Cybersecurity, Ph.D. in Aviation, Ph.D. in Business Analytics and Decision Sciences, Ph.D. in Critical Infrastructure, Ph.D. in Manufacturing, Ph.D. in Product Management, Ph.D. in Technology, Ph.D. in Technology/M.S. in Research Methods Combination Program, and Ph.D. in Unmanned Systems Applications. Therefore, the library is fully prepared to support a **B.S. in Counterterrorism**.

Services provided to online students include:

- “Ask the Librarian”
- Research Guides
- Tutorials
- Videos
- Online borrowing

The John G. and Beverley A. Puente Library provides access to management, decision science, and research methods materials through its 10,000-title book collection, e-books, and its 90 journal subscriptions. The library will continue to purchase new and additional materials in the management, decision science, and research methods area to maintain a strong and current collection in this subject area. Students can also access materials through the library's participation in Maryland's Digital eLibrary Consortium. This online electronic service provides access to numerous databases (Access Science, NetLibrary) that supply students with the materials they need. Available databases include ProQuest, EBSCO, ACM, Lexis Nexis, Taylor Francis, and Sage Publications.

The Puente Library can provide access to historical management and decision science materials through its membership in the Maryland Independent College and University Association (MICUA) and the American Society of Engineering Education (ASEE). Reciprocal loan agreements with fellow members of these organizations provide the library access to numerous research facilities that house and maintain archives of management and decision science documents. The proximity of the University of Maryland, College Park and other local area research and academic libraries provide the Puente Library with quick access to these materials as well.

The library currently supports the needs students at the undergraduate, masters and doctoral levels.

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

- 1. Provide an assurance that the 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. If the program is to be implemented within existing institutional resources, include a supportive statement by the President regarding adequate equipment and facilities to meet the program's needs.**

No new facilities are required for the program. The online class platform is web based and requires no additional equipment for the institution. The current Learning Management System, Canvas and Zoom, meets the needs of the degree program. The Business and Technology lab, Computer Science Lab, Cyber Lab, Robotics Lab, and Unmanned Systems Lab together meet the potential research needs of the students. The labs provide both local and virtual support.

- 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**

Capitol Technology University provides an institutional electronic mailing system to all students and faculty. The capability is provided to all students and faculty in all the institution's modalities of course delivery. Capitol Technology University students and faculty are required to use the institution's email addresses (e.g., xxxxxxxx@captechu.edu) in all university matters and communications. The University uses the email capabilities in Microsoft Office 365 and Microsoft Outlook.

- b. A Learning Management System that provides the necessary technological support for distance education**

Capitol Technology University provides a robust Learning Management Systems (LMS) through the use of the Canvas LMS by Instructure (www.canvaslms.com). The University pairs Canvas with Zoom (zoom.us) to provide a platform for every student and faculty member to meet face-to-face in a synchronous "live" mode of communication. The use of

Canvas is required for every course offered at the University; as a result, every course has a classroom on Canvas and Zoom. All syllabi, grades, and assignments must be entered in to Canvas on a timely basis throughout the semester.

Canvas provides the world's most robust LMS. It is a 21st Century LMS; Canvas is a native cloud, Amazon Web Service hosted system. The system is adaptable, reliable, and customizable. Canvas is easy to use for students and faculty. The system is fully mobile and has proven to be timesaving when compared to other systems. The following list provides the features of the system:

#### Time and Effort Savings

- **CANVAS DATA**  
Canvas Data parses and aggregates more than 280 million rows of Canvas usage data generated daily.
- **CANVAS COMMONS**  
Canvas Commons makes sharing a whole lot easier.
- **SPEEDGRADER ANNOTATIONS**  
Preview student submissions and provide feedback all in one frame.
- **GRAPHIC ANALYTICS REPORTING ENGINE**  
Canvas Analytics help you turn rich learner data into meaningful insights to improve teaching and learning.
- **INTEGRATED MEDIA RECORDER**  
Record audio and video messages within Canvas.
- **OUTCOMES**  
Connect each learning outcome to a specific goal, so results are demonstrated in clearly measurable ways.
- **MOBILE ANNOTATION**  
Open, annotate, and submit assignments directly within the Canvas mobile app.
- **AUTOMATED TASKS**  
Course management is fast and easy with automated tasks.
- **NOTIFICATION PREFERENCES**  
Receive course updates when and where you want - by email, text message, even Twitter or LinkedIn.
- **EASE OF USE**  
A familiar, intuitive interface means most users already have the skills they need to navigate, learn, and use Canvas.
- **IOS AND ANDROID**  
Engage students in learning anytime, anywhere from any computer or mobile device with a Web-standard browser.
- **USER-CUSTOMIZABLE NAVIGATION**

Canvas intelligently adds course navigation links as teachers create courses.

- **RSS SUPPORT**  
Pull feeds from external sites into courses and push out secure feeds for all course activities.
- **DOWNLOAD AND UPLOAD FILES**  
Work in Canvas or work offline—it's up to you.
- **SPEEDGRADER**  
Grade assignments in half the time.

#### Student Engagement

- **ROBUST COURSE NOTIFICATIONS**  
Receive course updates when and where you want—by email, text message, and even Facebook.
- **PROFILE**  
Introduce yourself to classmates with a Canvas profile.
- **AUDIO AND VIDEO MESSAGES**  
Give better feedback and help students feel more connected with audio and video messages.
- **MULTIMEDIA INTEGRATIONS**  
Insert audio, video, text, images, and more at every learning contact point.
- **EMPOWER GROUPS WITH COLLABORATIVE WORKSPACES**  
By using the right technologies in the right ways, Canvas makes working together easier than ever.
- **MOBILE**  
Engage students in learning anytime, anywhere from iOS or Android, or any mobile device with a Web-standard browser.
- **TURN STUDENTS INTO CREATORS**  
Students can create and share audio, video, and more within assignments, discussions, and collaborative workspaces.
- **WEB CONFERENCING**  
Engage in synchronous online communication.
- **OPEN API**  
With its open API, Canvas easily integrates with your IT ecosystem.
- **BROWSER SUPPORT**  
Connect to Canvas from any Web-standard browser.
- **LTI INTEGRATIONS**  
Use the tools you want with LTI integrations.
- **MODERN WEB STANDARDS**

Canvas is built using the same Web technologies that power sites like Google, Facebook, and Twitter.

#### Lossless Learning

- **CANVAS POLLS**  
Gauge comprehension and incorporate formative assessment without the need for “clicker” devices.
- **MAGICMARKER**  
Track in real-time how students are performing and demonstrating their learning.
- **QUIZ STATS**  
Analyze and improve individual assessments and quiz questions.
- **LEARNING MASTERY FOR STUDENTS**  
Empower students to take control of their learning.

(Source: <https://www.canvaslms.com/higher-education/features>)

Capitol Technology University has been using Canvas for over five years. Canvas has proven to be a completely reliable LMS system that provides the necessary technological support for distance education/online learning.

**L. Adequacy of Financial Resources with Documentation (as outlined in COMAR 13B.02.03.14):**

**1. Table 1: Resources. Finance data for the first five years of the program implementation.**

**TABLE 1: RESOURCES**

| <b>Resource Categories</b>                         | <b>Year 1</b>    | <b>Year 2</b>      | <b>Year 3</b>      | <b>Year 4</b>      | <b>Year 5</b>      |
|--|------------------|--------------------|--------------------|--------------------|--------------------|
| 1. Reallocated Funds                               | \$0              | \$0                | \$0                | \$0                | \$0                |
| 2. Tuition/Fee Revenue<br>(c + g below)            | \$481,114        | \$1,130,865        | \$1,557,448        | \$2,386,207        | \$2,866,451        |
| a. Number of F/T Students                          | 14               | 33                 | 44                 | 65                 | 77                 |
| b. Annual tuition/Fee rate                         | \$26,003         | \$26,393           | \$26,789           | \$27,191           | \$27,871           |
| c. Total F/T Revenue<br>(a x b)                    | \$364,042        | \$870,969          | \$1,178,716        | \$1,767,415        | \$2,146,067        |
| d. Number of P/T Students                          | 12               | 26                 | 37                 | 59                 | 67                 |
| e. Credit Hour Rate                                | \$813            | \$833              | \$853              | \$874              | \$896              |
| f. Annual Credit Hour                              | 12               | 12                 | 12                 | 12                 | 12                 |
| g. Total P/T Revenue<br>(d x e x f)                | \$117,072        | \$259,896          | \$378,732          | \$618,792          | \$720,384          |
| 3. Grants, Contracts and<br>Other External Sources | 0                | 0                  | 0                  | 0                  | 0                  |
| 4. Other Sources                                   | 0                | 0                  | 0                  | 0                  | 0                  |
| <b>TOTAL (Add 1 – 4)</b>                           | <b>\$481,114</b> | <b>\$1,130,865</b> | <b>\$1,557,448</b> | <b>\$2,386,207</b> | <b>\$2,866,451</b> |

This proposal builds upon an existing degree programs.

**A. Provide a narrative rationale for each of the resource categories. If resources have been or will be reallocated to support the proposed program, briefly discuss those funds.**

**1. Reallocated Funds**

The University will not need to reallocate funds for the program.

**2. Tuition and Fee Revenue**

Tuition is calculated to include an annual 2.5% tuition increase. A 20% attrition rate has been calculated.

**3. Grants and Contracts**

There are currently no grants or contracts.

**4. Other Sources**

There are currently no other sources of funds.

**5. Total Year**

No additional explanation or comments needed.



**2. Table 2: Program Expenditures. Finance data for the first five years of program implementation.**

**TABLE 2: EXPENDITURES**

| <b>Expenditure Category</b>         | <b>Year 1</b>    | <b>Year 2</b>    | <b>Year 3</b>    | <b>Year 4</b>    | <b>Year 5</b>    |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|
| 1. Faculty (b + c below)            | \$32,670         | \$58,960         | \$69,067         | \$106,193        | \$145,133        |
| a. Number of FTE                    | 2                | 3.5              | 4                | 6                | 8                |
| b. Total Salary                     | \$27,392         | \$49,133         | \$57,556         | \$88,494         | \$120,944        |
| c. Total Benefits (20% of salaries) | \$5,278          | \$9,827          | \$11,511         | \$17,699         | \$24,189         |
| 2. Admin Staff (b + c below)        | \$4,798          | \$5,090          | \$5,243          | \$5,374          | \$5,508          |
| a. Number of FTE                    | .07              | .07              | .07              | .07              | .07              |
| b. Total Salary                     | \$4,084          | \$4,207          | \$4,333          | \$4,441          | \$4,552          |
| c. Total Benefits                   | \$858            | \$883            | \$910            | \$933            | \$956            |
| 3. Support Staff (b + c below)      | \$57,475         | \$88,369         | \$114,950        | \$120,770        | \$185,676        |
| a. Number of FTE                    | 1.00             | 1.5              | 1.75             | 2                | 3                |
| b. Total Salary                     | \$47,500         | \$73,032         | \$83,125         | \$99,810         | \$153,450        |
| c. Total Benefits                   | \$9,975          | \$15,337         | \$16,625         | \$20,960         | \$32,226         |
| 4. Technical Support and Equipment  | \$1,560          | \$3,835          | \$5,670          | \$9,300          | \$11,520         |
| 5. Library                          | \$0              | \$0              | \$0              | \$0              | \$0              |
| 6. New or Renovated Space           | \$0              | \$0              | \$0              | \$0              | \$0              |
| 7. Other Expenses                   | \$54,600         | \$135,700        | \$202,500        | \$334,800        | \$417,600        |
| <b>TOTAL (ADD 1-7)</b>              | <b>\$151,103</b> | <b>\$291,954</b> | <b>\$397,430</b> | <b>\$576,437</b> | <b>\$765,437</b> |

**1. Provide a narrative rationale for each expenditure category. If expenditures have been or will be reallocated to support the proposed program, briefly discuss those funds.**

**a. Faculty**

Table 2 reflects the faculty hours in total, but this does not imply that these are new hire requirements.

**b. Administrative Staff**

Capitol Technology University will continue with current the administrative staff through the proposed time period.

### **c. Support Staff**

Capitol Technology University will add additional support staff to facilitate the program.

### **d. Equipment**

Software for courses is available free to students or is freeware. Additional licenses for the LMS will be purchased by the University at the rate of \$60 per student in Year 1. The rate is estimated to increase by \$5 per year.

### **e. Library**

Money has been allocated for additional materials to be added to the on campus and virtual libraries to ensure the literature remains current and relevant. However, it has been determined that the current material serves the needs of this degree due to the extensive online database.

### **f. New or Renovated Space**

No new or renovated space is required.

### **g. Other Expenses**

Funds have been allocated for office materials, travel, professional development, course development, marketing, and additional scholarships.

## **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.**

The assessment process at the University consists of a series of events throughout the Academic Year. The results of each event are gathered by the University Assessment Team and stored in Canvas for analysis and use in annual reports, assessments, etc. The University Assessment Team analyzes the results, develops any necessary action plans, and monitors implementation of the action plans.

#### Academic Year Assessment Events:

##### Fall Semester:

- At the August Faculty Retreat, the faculty reviews any outstanding student learning challenges that have not been adequately addressed. The issues are brought to the Academic Deans for review and development of implementation plans.
- Faculty submit performance plans consistent with the mission and goals of the University and department. The documents are reviewed and approved by the Academic Deans.
- Department Chairs and Academic Deans review the Graduating Student Survey data.
- Department Chairs and Academic Deans review student internship evaluations.
- Department Chairs and Academic Deans review grade distribution reports from the spring and summer semesters.
- Department Chairs and Academic Deans review student course evaluations from the Summer Semester.
- Departments conduct Industrial Advisory Board meetings to review academic curriculum recommendations. The Advisory Board meets to begin curriculum review or address special

issues that may arise related to curriculum. Based on an analysis and evaluation of the results, the Academic Deans, faculty and the advisory boards will develop the most effective strategy to move the changes forward.

- NOTE: A complete curriculum review for degrees occurs every 2 years. In most cases, the changes only require that the Academic Deans inform the University President and provide a report that includes a justification and the impact of the changes as well as a strategic plan. Significant changes normally require the approval of the Executive Council.
- The Academic Deans attend the Student Town Hall and review student feedback with Department Chairs.
- Department Chairs conduct interviews with potential employers at our Career Fair.
- Post-residency, the Academic Deans meet with the faculty to review the student learning progress and discuss needed changes.

Spring Semester:

- Faculty Performance Plans are reviewed with faculty to identify issues of divergence and to adjust the plan as needed.
- Department Chairs and Academic Deans review grade distribution reports from the Fall Semester.
- Department Chairs and Academic Deans review the Graduating Student Survey data.
- Department Chairs and Academic Deans review student course evaluations from the Fall Semester and the Spring Semester (in May before the Summer Semester begins).
- Department Chairs and Academic Deans meet to review the content of the graduating student, alumni, and course surveys to ensure the surveys continue to meet the university's assessment needs.
- At Annual Faculty Summit in May, the faculty review and discuss student learning challenges from the past academic year and provide recommendations to the Academic Deans for review and development of implementation plans.
- Department Chairs conduct interviews with potential employers at our Career Fair.
- Departments conduct Industrial Advisory Board meetings to review academic curriculum recommendations.

In addition to these summative assessments, the Academic Deans meet with the Department Chairs on a weekly basis to review current student progress. This formative assessment allows for immediate minor changes, which increase faculty effectiveness and, ultimately, student outcomes.

The Faculty Senate meets monthly during August through April. The Faculty Senate addresses issues that impact student outcomes as those issues emerge. The leadership of the Faculty Senate then provides a report on the matter to the Academic Deans. The report may include a recommendation or a request to move forward with a committee to further examine the issue. In most cases, the changes only require the Academic Deans to inform the University President and provide a report that includes a justification and the impact of changes as well as a strategic plan. Significant changes normally require the approval of the Executive Council.

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.

*Student Learning Outcomes:*

Student learning outcomes for the proposed **B.S. in Counterterrorism**, will be measured using the instruments identified in Section G and Section M as well as the assigned rubrics and assessment measures (e.g., capstone courses, competency exams/projects) dictated by the accreditation requirements of the University's regional accreditor [i.e., Middle States Commission in Higher Education (MSCHE)]. The University will also use International Association for Counterterrorism and Security Professionals (IACSP) Certified Anti-Terrorism Officer (cATO™) Body of Knowledge and its related assessment tools to assess student achievement of the learning outcomes in the program. The University is in good standing with all its accrediting bodies.

*Student Retention:*

The University maintains a comprehensive student retention program under the Vice President for Student Engagement. The program assesses student retention at all levels, including the individual course, major, and degree. During the semester and term, the University's Drop-Out Detective capability, within its Learning Management System (Canvas), provides an early alert at the course level to potential issues related to retention. Within the Office of Student Life, Academic Advisors monitor Drop-Out Detective and contact students who appear to have issues affecting their academic performance. The Academic Advisors work with each student to create a plan to remove any barriers to success. The Academic Advisors also work with the course instructors as needed to gain additional insight that may be helpful to correcting the situation.

Each student also meets with their Academic Advisor each semester to evaluate their progress toward degree completion. An updated plan of action is developed for each student for their next semester's registration and each succeeding semester through degree completion.

The Vice President for Student Engagement also meets on a regular basis with the Academic Deans to review the student retention within each degree program and address any issues that appear to be impediments to degree completion.

*Student and Faculty Satisfaction:*

Evaluations and assessment of Student and Faculty satisfaction occur every semester. Faculty members are evaluated every semester by students enrolled in their courses. Students are required to complete a course evaluation online within a specified time frame at the end of the semester for every enrolled course or they are locked out of Canvas (the University's Learning Management System) until they complete each survey. Every faculty member is also required to review each of their courses for the semester.

The Department Chairs and Academic Deans review the student evaluations for every course offered at the university. The Department Chairs and Academic Deans also review faculty satisfaction every semester. If changes are needed at the course level, the changes are developed and implemented by the faculty responsible for the courses upon approval of the Academic Deans. If changes are needed at the faculty level, the Department Chairs will make the changes. At the end of this cycle, an evaluation is repeated and the results are analyzed

with the appropriate stakeholders regarding the effectiveness of the changes. This is an ongoing process.

*Cost Effectiveness:*

Based on the year-long inputs, evaluations, and reviews described in Section M.1 from faculty, students, industry representatives, and Department Chairs, the University Academic Deans prepare the proposed academic budget for each program for the upcoming year. Budget increases are tied to intended student learning improvements and key strategic initiatives.

Each academic program is also monitored by the Interim Vice President for Finance and Administration throughout every semester and term for its cost effectiveness. Additionally, the revenue and costs of every University program are reviewed annually by the Executive Council and Board of Trustees prior to approving the next year's budget.

**N. Consistency with the State's Minority Student Achievement goals (as outlined in COMAR 13B.02.03.05 and in the State Plan for Post-Secondary Education):**

- 1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.**

Capitol Technology University is a majority/minority school. Our programs attract a diverse set of students who are multiethnic and multicultural. The University actively recruits minority populations for all undergraduate and graduate level degrees. Special attention is also provided to recruit females into the STEM and multidisciplinary programs at all degree levels – undergraduate, Master's, and doctoral. The same attention will be given to the **B.S. in Counterterrorism**.

**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 associated with a low productivity program identified by the commission.

**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.**

Capitol Technology University is fully eligible to provide distance education. The University has a long history of providing high-quality distance education. The University is accredited regionally by the Middle States Commission in Higher Education (MSCHE) and through four specialized accrediting organizations: International Accreditation Council of Business Education (IACBE), Accreditation Board for Engineering and Technology (ABET), NSA, and DHS. All five accrediting organizations have reviewed the University's distance education program as part of their accreditation process. Capitol Technology University is fully accredited by MSCHE, IACBE, ABET, NSA, and DHS. The University is in good standing with all its accrediting bodies.

2. **Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.**

Capitol Technology University has a long history of providing high quality distance education/online learning that complies with the Council of Regional Accrediting Commissions (C-RAC) Interregional Guidelines for the Evaluation of Distance Education. The University will also continue to comply with the C-RAC guidelines with the proposed **B.S. in Counterterrorism** program.

- a. **Council of Regional Accrediting Commissions (C-RAC) Interregional Guidelines for the Evaluation of Distance Education.**

1. **Online learning is appropriate to the institution's mission and purposes.**

Online learning is consistent with the institution's mission, purpose and history. Please refer to Section A of this proposal.

2. **The institution's plans for developing, sustaining, and, if appropriate, expanding online learning offerings are integrated into its regular planning and evaluation processes.**

All programs at the University – online, hybrid, and on-ground – are subject to the same regular planning, assessment, and evaluation processes. Please see Section M of this proposal for the detailed process.

3. **Online learning is incorporated into the institution's systems of governance and academic oversight.**

All programs at the University – online, hybrid, and on-ground – are subject to the same systems of governance and academic oversight. Please refer to Section G and Section M of this proposal.

4. **Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.**

Online programs/courses meet the same accreditation standards, goals, objectives, and outcomes as traditional instruction at the university. The online course development process incorporated the Quality Matters research-based set of standards for quality online course design to ensure academic rigor of the online course is comparable to the traditionally offered course. The Academic Deans, Department Chairs, and faculty review curriculum annually. Courses are reviewed at the end of each term of course delivery. This process applies to online and traditional courses. In addition, advisory boards are engaged in the monitoring of course quality to ensure quality standards are met regardless of the delivery platform.

5. **The institution evaluates the effectiveness of its online learning offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals.**

Online programs/courses meet the same accreditation standards, goal, objectives, and outcomes as traditional classroom delivery. Learning platforms are chosen to ensure high standards of the technical elements of the course. The University Academic Deans monitor all course conversions from on-ground to online to ensure the online course is academically equivalent to traditionally offered course and that the technology is appropriate to support the expected rigor and breadth of the programs courses.

**6. Faculty responsible for delivering the online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported.**

The Department of Counterterrorism is staffed by qualified teaching Department Chair, and other appropriately credentialed faculty.

The evaluation of new courses and programs is done using the same process as all existing programs. (Please see Section M of this document). All Capitol Technology University faculty teach in the traditional classroom environment and online. (Please see qualifications in Section I of this document.)

**7. The institution provides effective student and academic services to support students enrolled in online learning offerings.**

Students can receive assistance in using online learning technology via several avenues. Student aides are available to meet with students and provide tutoring support in both subject matter and use of the technology. Tutors are available in live real-time sessions using Zoom or other agreed upon tools. Pre-recorded online tutorials are also available.

In addition to faculty support, on ground and online tutoring services are available to students in a one-on-one environment.

Laboratories (on ground and virtual) are available for use by all students and are staffed by faculty and tutoring staff who provide academic support.

Library services and resources are appropriate and adequate. Please refer to Section J of this document and the attached letter from the university president. The library adequately supports the students learning needs.

**8. The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings.**

The University has made the financial commitment to the program (please refer to Section L). The University has a proven record of accomplishment in supporting degree completion.

**9. The institution assures the integrity of its online offerings.**

Current faculty serve on internal advisory boards that examine possible for program changes, including course and program development. All faculty are selected on domain expertise and program-related teaching experience.



When new faculty or outside consultants are necessary for the design of courses offered, our Human Resource Department initiates a rigorous search and screening process to identify appropriate faculty to design and teach online courses. Again, all faculty are selected on domain expertise and program-related teaching experience

The University online platforms offer several avenues to support instructors engaged in online learning. The Director of our Online Learning Division is highly skilled and trained in faculty development. Several seminars and online tutorials are available to the faculty every year. Mentors are assigned to new faculty. Best practice sharing is facilitated through the Academic Deans, Department Chairs, and formal meetings.

The assessment for online learning classes/students is the same as for all academic programs at the University. Faculty provide required data on student achievement. The Learning Management System provides data on student achievement. Proof of these assessments is available during the class and post class to the Academic Deans and Department Chairs. On an annual basis, the information is reported to the University's accreditation authorities such as MSCHE.