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

Institution Submitting Proposal	

Each __action__ below requires a separate proposal and cover sheet.

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

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

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

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

President/Chief Executive	Type Name:
	Signature: Date:
	Date of Approval/Endorsement by Governing Board:

Revised 1/2021

UNIVERSITY OF MARYLAND GLOBAL CAMPUS
OFFICE OF THE CHIEF ACADEMIC OFFICER

March 1, 2024 (Revised March 5, 2024)

Dr. Sanjay Rai
Acting Secretary of Higher Education
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Dr. Rai:

On behalf of the University of Maryland Global Campus (UMGC), this letter serves as an official request for a new online ***Upper-Division Certificate in Drones and Autonomous Systems*** (HEGIS: 0902.xx and CIP: 49.0101). In accordance with COMAR 13B.02.03, the following proposal is submitted for your review.

We appreciate your review of this request and look forward to implementing this new program in the Spring 2025 term. If you have any questions or require additional information about this proposal, please contact me at blakely.pomietto@umgc.edu

Payment for review of this proposal has been made to MHEC via R*STARS interagency fund transfer, transaction number JFO20065, in the amount of $850 in accordance with the MHEC fee schedule.

Sincerely,

[signature]

Blakely R. Pomietto, EdD
Senior Vice President and Chief Academic Officer

cc: Candace Caraco, PhD, Associate Vice Chancellor for Academic Affairs, University System of Maryland

ACADEMIC PROGRAM PROPOSAL

University of Maryland Global Campus (UMGC)
Upper-Division Certificate in Drones and Autonomous Systems

The University of Maryland Global Campus (UMGC) proposes a new online Upper-Division Certificate in Drones and Autonomous Systems (C-DAS). The certificate will require 18 credits (six 3-credit courses) of undergraduate coursework. The C-DAS can be pursued as a stand-alone certificate, which has immediate market value with respect to employment and career opportunities. It can also be completed as a stackable credential, allowing students to apply the program credits to a range of existing undergraduate majors at UMGC including Criminal Justice, Homeland Security, or Public Safety Administration, or the minor in Emergency Management.

As new ways to leverage the power and versatility of unmanned aerial vehicles (UAVs) and other autonomous systems are identified, the C-DAS addresses the corresponding need for workforce preparation and training for operators, managers, administrators, and support staff to understand operational opportunities and limitations to optimally utilize these systems. The certificate curriculum includes an introduction to drones and autonomous systems, history and background, applications, emerging off-the-shelf technologies, and breakthroughs in the public, defense, and commercial sectors. UMGC students will acquire robust knowledge of related policies, laws, capabilities, and skills critical for success in the drone industry.

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.

Consistent with the institutional purpose as stipulated by State statute (Md. Education Code Ann.§ 13-101(2013)1), the mission of UMGC is improving the lives of adult learners. UMGC will accomplish this by:

1) Operating as Maryland's open university, serving working adults, military servicemen and servicewomen and their families, and veterans who reside in Maryland, across the United States, and around the world;
2) Providing our students with affordable, open access to valued, quality higher education; and
3) Serving as a recognized leader in career-relevant education, embracing innovation and change aligned with our purpose and sharing our perspectives and expertise.

Each facet of UMGC's mission has direct bearing on the academic programs the university offers and how those programs are designed and delivered. By mission and state mandate, every aspect of the UMGC learner experience is designed from its origins for working-adult and military-affiliated students, providing a learning ecosystem that can be seamlessly accessed from anywhere in the world. The selection, training, and evaluation of faculty; success coach advising model; virtual classroom; academic resources; student support services; and the term and session structure are all deliberately derived from adult-learning science in distance and distributed modalities. In particular, the demographic profile of UMGC's students drives the design and delivery of our learning model. The average age of UMGC's undergraduate students is 31 years old, and 79% of these students work full-time. The average age of UMGC's graduate students is 37 years old, and 80% of these students work full-time. Further, 44% of all current UMGC students report having

dependent children. For these students, their often-complicated life circumstances while pursuing higher education means they need and benefit most from the authentic online education that UMGC has delivered for more than two decades.

Authentic online education is fundamentally different from courses and programs originating at traditional institutions and taught remotely in the same way as face-to-face classes. Instead, authentic online education is a distinctive educational architecture intentionally designed for virtual teaching, learning, and assessment, with technology tools strategically deployed for engagement and outcomes, as well as wraparound services that provide support throughout the online student life cycle. These features set UMGC apart in the higher education landscape.

UMGC's strong relationship with the military community is part of our institutional history and identity. Currently, approximately two-thirds of our undergraduate students and one-third of our graduate students are military affiliated, including active duty servicemembers, their families, and veterans. This dimension of UMGC's identity is a particular point of pride, beginning with the university first sending faculty overseas in 1949 to teach American soldiers on military installations in Europe. The relationship between UMGC and the military has continued to expand over the ensuing decades due to our intentional program design and delivery model that meets adult learners where they are, whether through asynchronous online courses or through innovative hybrid course delivery modes on military bases in Germany, Italy, Japan, Korea, Guam, Colorado, Virginia, and other military locations across the nation and around the world. Today, UMGC holds competitively awarded contracts from the U.S. Department of Defense (DOD), under which we serve military servicemembers in Europe, Asia, and the Middle East, delivering specifically solicited programs of study identified by the DOD as responsive to the training, education, and upskilling needs of the military. UMGC is consistently recognized as one of the top military- and veteran-friendly schools in the country, with an unmatched expertise and established reputation as a preeminent provider of quality, affordable, career-relevant postsecondary education.

The Upper-Division Certificate in Drones and Autonomous Systems (C-DAS) aligns with UMGC's mission to offer high quality, workplace-relevant academic programs that expand the range of credentials and career opportunities for working-adult and military-affiliated learners. The program provides a learner-focused experience based on leading-edge adult learning theory and curriculum design. This fully online, asynchronous program model offers flexibility for students who are seeking to refresh and reshape their career opportunities. Students have the opportunity to gain new knowledge and learn and practice new skills as they progress through formative instruction. A detailed description of the proposed program requirements, curriculum, and coursework is included in Section G of this proposal.

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

As the public state and national leader in distance education, UMGC awards associate's, bachelor's, master's, and doctoral degrees, as well as undergraduate and graduate certificates. The university's academic inventory includes programs that are core to any public university, while UMGC's mission to serve adult students also results in a sustained academic emphasis on career-relevant and workforce-aligned programs.

UMGC's new *2024-2030 Strategic Plan* establishes priorities and strategies guiding the university to achieve its vision of becoming the learner-centric, data-driven, and skills-based school of choice for adults and businesses. This plan is rooted in foundational commitments reflecting UMGC's history

and mission and establishes a series of strategic priorities that advance the university's vision and position us for the future. The five key priorities established in this plan are:

1) Market-responsive portfolio management that continuously adapts to learner and employer needs
2) A skills architecture that can be translated between educational and work experiences
3) Targeted expansion that strengthens and diversifies our learner population
4) A responsive, tailored, and seamless experience to maximize the success of our diverse learners
5) Intentional study of and investment in our people's needs

This proposal contributes directly to two of the five strategic priorities in UMGC's new strategic plan, utilizing "market-responsive portfolio management that continuously adapts to learner and employer needs" and employing "a skills architecture that can be translated between educational and work experiences." Successful portfolio management requires a focus on university-wide agility, effective resource utilization, and market-responsiveness, all of which were key considerations driving UMGC's decision to develop this certificate program at this time. Further, the innovative curriculum in this program will provide opportunities for learners to develop core skills that are explicitly aligned with their current needs and interests, while also transferable to a broad range of careers and professional experiences.

With an emphasis on preparing students for drone-related employment and careers, students in the C-DAS will gain relevant knowledge and skills based on standards that can be applied in multiple fields that utilize drone technology. The curricular components of the C-DAS flow logically and purposefully from the institution's strategic goals by preparing students for career entry or advancement across a range of sectors and industries. The C-DAS is a uniquely designed program focusing on the holistic development of the drone professional rather than focusing solely on drone pilot certification. The C-DAS meets diverse educational needs through teaching students how to perform effectively in technical, operational, and support activities that utilize drones, remotely piloted vehicles, and autonomous systems.

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.)

Course development for the new program will be funded through a departmental budget allocation as part of the FY 2025 budget process. The existing base of FTE faculty (full-time and adjunct), administrative staff, and support staff will be sufficient to support the initial launch of the program. Tables 13 and 14 in Section L provide additional details and narrative explanations for anticipated resources/revenues and expenditures during the first five years of the program.

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

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

UMGC's support services are designed to accommodate students' access through entirely online and remote delivery. These services are, therefore, intentionally and thoughtfully built for complete online delivery rather than in the primarily face-to-face format that exists on traditional campuses. Support services include the following:

- Help@UMGC provides support services for the learning management system (online learning platform). UMGC's learning management system is Desire2Learn (D2L); its internal adaptation is called LEO. A specialized technical support team for LEO questions and problems is available 24 hours a day, 7 days a week, 365 days a year. In addition, UMGC trains faculty to handle some LEO troubleshooting; publishes LEO FAQs; and provides chat, phone, and e-mail access to a Help Center.
- MyUMGC is a self-service portal that provides access to UMGC administrative functions and student records. UMGC has designed this portal to ensure that students around the world can complete administrative tasks and view their academic records at their convenience.
- The Integrative Learning Design unit within Academic Affairs provides instructional design support and consultation to Help Desk staff and program leadership to optimize the learning environment across delivery modes and resolve challenges or obstacles students and faculty may encounter in online classrooms.
- Success Coaches and Military Education Coordinators are committed to partnering with students as they navigate their UMGC journey through thought provoking and supportive conversations, empowering students to make informed degree planned decisions, connecting them with the right resources at the right time, and celebrating the student's successful milestones and educational goals.
- Students receive support in educational technology from UMGC's Virtual Lab Assistants team. Team members are well-versed in the content of the courses they support and can quickly help a struggling student.
- The Effective Writing Center (EWC) offers many writing-related services to students, including resources for improving writing skills, citing and referencing resources, and supporting research activities. The EWC is directly accessible through a link within each online classroom.
- Turnitin has been integrated directly into all online courses as a developmental tool for students to assist with achieving authenticity in their writing. TII's Draft Coach is another tool available to students to help with writing and citing skills.
- UMGC's Library is directly accessible through a link within each online classroom. UMGC's librarians help educate students in the use of library and information resources and services and develop and manage UMGC's extensive online library collection.
- First Term Experience provides high engagement, mentorship, and relevant content in first-term courses, including PACE (Program and Career Exploration), to propel students into their chosen academic programs.
- Free subject matter tutoring is available in select courses. Subject matter tutors can help define and explain concepts, clarify examples from course content, and guide students toward understanding a particular topic. Students can connect with a subject matter tutor by accessing a link in their online classroom. Students can choose to connect at once or schedule a meeting with a tutor at another time. Group sessions are scheduled for certain subject areas, and every student has access to tutoring for Reading Comprehension and Technology skills.
- The Office of Accessibility Services arranges accommodations for students with medical conditions protected under the Americans with Disabilities Act. Students can register with this office via an online form and work with staff to receive appropriate accommodations for their courses.
- Free, anonymous mental health support is offered to students via an online peer-to-peer support service, a 24/7 wellness line supported by licensed clinicians, and a self-service online provider directory.

- Student Engagement and Programming offers students a chance to connect virtually via UMGC's various **clubs and organizations** (co-curricular clubs, honor societies, and affinity groups). All official student clubs have a faculty advisor to support student leaders. These groups provide professional growth opportunities, leadership development, and academic recognition. Additionally, students have the opportunity to connect with global peers with a newly acquired online social platform called GetSet.
- UMGC is invested in helping students who are facing other challenges in life that impact finances and basic needs. For example, the **SAFER Program** offers emergency funding to students demonstrating distress. UMGC has identified a service for qualifying students to acquire free internet and a tablet through the **Public Wireless** program. We are continuously looking for ways to better serve our students and to connect them to resources that support equitable access.
- The Office of Career Services and its CareerQuest portal provide quality resources and services to assist students and alumni with their career planning and job search needs, including the Community Connect mentorship and InternPLUS programs. Career Services supports students transitioning from one career field to another or looking to advance in their current career, in addition to those entering the workforce for the first time.
- The Tuition Planning team provides students with all-inclusive consultative financial support for all UMGC payment methods, with a focus on comprehensive funding and tuition planning to help guide students from their first class to graduation.
- The Financial Aid Office helps students understand and navigate the process of applying for financial aid. Staff members have expertise with a variety of financial aid options, as UMGC students may be using employer assistance, military or veterans' benefits, or other aid that is more common among adult student populations.

The C-DAS will be overseen and administered by a UMGC Program Director, with the assistance of a Collegiate Faculty member and part-time support from an Academic Program Coordinator. Additional administrative support functions, including marketing, admissions, course development, advising services, finances, and academic operations are all delivered through institutionally centralized teams that work in a distributed and collaborative fashion with all academic schools and programs at the institution.

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

This is not applicable as this certificate is new.

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

1. **Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State in general based on one or more of the following:**

   a. **The need for the advancement and evolution of knowledge.**
   b. **Societal needs, including expanding educational opportunities and choices for minority and educationally disadvantaged students at institutions of higher education.**

c. **The need to strengthen and expand the capacity of Historically Black Institutions to provide high quality and unique educational programs.**

As a fully online undergraduate program at an open-access institution, UMGC's C-DAS will diversify credential options for working-adult and military-affiliated populations in the rapidly growing field of drones and autonomous systems. UMGC plays a pivotal role in meeting societal needs through making educational opportunities and choices available for all students within the State of Maryland, including minority students, first generation students, and military-affiliated and working-adult students. In February 2023, UMGC was designated as a Minority Serving Institution by the U.S. Department of Education Office of Postsecondary Education. The university currently enrolls some 24,000 African American undergraduate and graduate students, 13,000 Hispanic/Latino students, 5,000 Asian students, and 15,000 students who self-identify as Native American, Hawaiian or Pacific Islander, Multiracial, or Other. Currently, more than 50% of all UMGC degrees and certificates are granted to minority students. UMGC is committed to serving all students who have been previously underserved in higher education. The statistics above support that UMGC is successfully reaching and serving these student populations.

2. **Provide evidence that the perceived need is consistent with the <u>2022 Maryland State Plan for Higher Education</u>.**

The C-DAS is designed to meet the needs of students, the demands of employers, and to support both current and future postsecondary priorities of the State, as identified in the *2022 Maryland State Plan for Higher Education.* This program supports the three primary goals in the State Plan in the following ways:

Goal 1: Student Access – Ensure equitable access to affordable and high-quality postsecondary education for all Maryland residents.

The program will support Goal 1 in the State Plan in that it is designed to support UMGC's overall mission to set a global standard for excellence and to be respected as a leader in affordable and accessible adult education programs. UMGC administers its programs to meet the University System of Maryland's goals of effectiveness and efficiency by employing data-driven decision-making that ensures that academic programs are broadly accessible and offer high quality education at an affordable cost. UMGC's commitment to access and affordability is synonymous with our commitment to diversity and inclusion. The university's open admission approach at both the undergraduate and graduate levels is central to these commitments. The process to apply for admission is streamlined and does not require the submission of standardized test scores. Admission requirements for this new program will be aligned with this mission. UMGC remains committed to maintaining its position in serving the educational needs of historically underserved students.

Goal 2: Student Success – Promote and implement practices and policies that will ensure student success.

<u>Priority 5: Maintain the commitment to high-quality postsecondary education in Maryland</u>. This program aligns with UMGC's mission to serve adult students and results in a sustained academic emphasis on career-relevant and workforce-aligned programs. The C-DAS reaches beyond the more numerous drone certification programs that focus solely on certifying drone pilots to fly unmanned aerial vehicles. Rather, the C-DAS focuses on providing students with a well-rounded education on the drone profession, building depth and breadth of knowledge about the drone industry and various professional sectors that now utilize drones, including retail, military, public safety,

transportation, agriculture, engineering, entertainment, and real estate, to name a few.

Priority 7: Enhance the ways postsecondary education is a platform for ongoing lifelong learning. The C-DAS is designed to draw students to a new and burgeoning field that permeates numerous professions and industries. At the same time, the drone business is still relatively new and technically unfamiliar to many people. The UMGC student who completes this program will be equipped with robust knowledge of the policies, laws, and opportunities associated with drone programs and have the confidence to pursue diverse career fields. By understanding the rapidly expanding drone business, students will be uniquely qualified to create, implement, and manage drone programs in a variety of different areas. Future employers will recognize their distinct qualifications, making these students more attractive as potential employees. Further, after completing the upper-division certificate, students can continue their studies with UMGC at the bachelor's and master's level in related degree programs in criminal justice, homeland security, emergency management, intelligence management, or public safety administration.

Goal 3: Innovation – Foster innovation in all aspects of Maryland higher education to improve access and student success.

Like other UMGC programs, the C-DAS is based on principles of skills- and performance-based learning that are at the forefront of developments in adult learning in higher education. Skills-aligned learning is an outcomes-based approach to education that emphasizes what students should know and be able to do to be successful in their chosen disciplines, fields, and careers. The approach is learner-focused, and authentic assessment (the measurement of what students have learned and the competencies students master) is embedded in every step of the learning process to assist students in building real-world, job-relevant skills in real time. Like other UMGC programs, this new program will employ authentic, project-based assessments that are relevant to tasks that graduates will actually perform on the job; such projects serve as both the means of instruction and assessment of learning in the program. The curriculum and content will focus on skills-aligned learning directed toward problems and issues facing practicing professionals. Retention and success focus on students' learning experiences and are improved through enhanced learning resources provided online within the learning management system. The methodology and on-demand nature of this type of student support is reflective of best practices in online learning.

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.**

The drone industry is a rapidly growing and evolving sector. The use of autonomous systems in general, and UAVs in particular, has expanded exponentially over the past decade across a broad range of industries, including the military, public safety, environmental management, marketing and advertising, surveying, photography, and construction. The expansion of drone technology has created the need for accessible workforce training and professional development programs that advance knowledge in this field and prepare professionals both for career entry and career advancement.

The spike in the drone industry over the past several years makes it apparent that the use of drones has expanded beyond military or hobby use. The drone market has grown steadily and continuously as drones and autonomous systems have been adopted in countless industries and professions. This demand has increased the significance of the drone market and employment sector, with substantial impact on global economies, societies, and governments. For example,

drones are now being used extensively by public safety and emergency management agencies around the world. Police and fire departments use drones after disasters such as floods, tornadoes, earthquakes, hurricanes, and storms. Other uses include mapping cities, monitoring suspects during police chases, crime scene investigations, analyzing auto accident scenes, search and rescue missions, and monitoring large groups of people.

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 defense sector is currently the largest market for drone technology use. On a per-year basis, the demand for drones by the military is expected to reach $21.76 billion by 2026, at a compound annual growth rate of 12.4% from the 2018 value of $7.93 billion. Globally, the commercial drone market, to include energy, agriculture, construction, mining, environment, healthcare, real estate, transport, warehousing, public safety, emergency management, law enforcement, etc., is predicted to grow from $22.5 billion in 2020 to over $42.8 billion by 2025. Other experts estimate the 2025 value to be as high as $82 billion, generating more than 100,000 jobs. In Maryland, the drone industry is projected to create 2,500 jobs and $2 billion in economic impact by 2025, as a state with a cluster of more than 60 federal agencies and 20 military installations.

Drone-related job opportunities have wide-ranging salaries from $50,000 to $150,000 per year according to CareersViaEducation (2023), depending on experience and location. Individuals who pursue drone pilot training find that their skills apply across a range of industries such as agriculture, construction, real estate, marketing, energy production, public safety, and even search and rescue operations. Specific job roles within the industry include Project Manager, UAV Business Owner, Technical Writer, Field Engineer, Marketing, Business Development, Quality Assurance, Integration Technician, Systems Test Analyst, and more (Indeed.com, 2023).

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.**

One of the greatest areas of opportunity for expanded use of drones and autonomous systems is the field of public safety. A 2022 study by the Bard College Institute of Public Safety Agencies found that at least 1,578 state and local public safety agencies reported utilizing drones, with an expectation of continued future growth. Individuals already working in public safety related occupations could benefit from additional education and training opportunities that allow them to stay on the forefront of technological changes impacting their field. At the same time, those seeking to enter a career in public safety could enhance their strength as a candidate by having experience with drones and autonomous systems.

UMGC anticipates that many of the students who enroll in the C-DAS will also be enrolled in one of UMGC's public safety related degree programs, including Criminal Justice, Homeland Security, and Public Safety Administration. Across these three bachelor's degree programs alone, UMGC has graduated 2,544 students over the past five years (2019 to 2023). For these reasons, the market analysis in this section will focus on the public safety sector of employment for C-DAS graduates. Table 1 shows the five-year forecast for public safety occupations in Maryland and across the DMV region, as compared to the national average.

Table 1: Five-Year Job Forecast for Maryland, DMV Region, and National Average

Five-Year Job Forecast for Public Safety Occupations				
	2023 Jobs	**2028 Jobs**	**2023-2028 # Change**	**2023-2028 % Change**
Maryland	20,899	21,801	903	4.3%
Maryland, Virginia, District of Columbia	57,245	59,330	2,085	3.6%
National Average	17,876	18,329	452	2.5%

Source: Lightcast Job Posting Analytics

Note: National average values are derived by taking the national value for the occupation and scaling it down to account for the difference in the overall workforce size between the nation and Maryland. In other words, the values represent the national average adjusted for region size.

Over the first half of 2023, public safety jobs in Maryland were split across several industries, with the majority falling under local government, as shown in Table 2. The top public safety job titles over that period, including the number of unique job postings in Maryland, are listed in Table 3.

Table 2: Lightcast Industries for Public Safety in Maryland (Jan 2023 – Jun 2023)

Top Five Industries	Percent within Occupation
Local Government, Excluding Education and Hospitals	68.3%
State Government, Excluding Education and Hospitals	9.9%
Federal Government, Civilian	8.4%
Federal Government, Military	6.6%
Education and Hospitals (State Government)	1.7%

Source: Lightcast Occupational Overview

Table 3: Lightcast Job Titles for Public Safety in Maryland (Jan 2023 – Jun 2023)

Top Five Job Titles	Number of Unique Postings
Border Patrol Agent	376
Interdiction Agent	159
Dispatchers	57
Police Officers	57
Public Safety Officers	41

Source: Lightcast Occupational Overview

Forty-four percent of the Maryland job postings referenced above required only a high school diploma or did not specify an educational requirement, while an additional 38% required an associate or bachelor's degree. This positions a credential such as the C-DAS as a strong differentiator for job seekers in these fields. Additionally, 94% of the postings required three years of work experience or less. Table 4 and Table 5 detail the specific educational and experience requirements from these job postings.

Table 4: Lightcast Educational Breakdown for Public Safety Jobs in Maryland (Jan 2023 – Jun 2023)

Educational Level	Percentage
No Education Specified	9%
High school diploma or equivalent	35%
Associate degree	11%
Bachelor's degree	27%
Master's degree	9%
Doctoral or professional degree	9%

Source: Lightcast Job Posting Analytics

Table 5: Lightcast Minimum Experience Required for Public Safety Jobs in Maryland (Jan 2023 – Jun 2023)

Minimum Experience	Percentage
No Experience Listed	35%
0-1 Years	42%
2-3 Years	17%
4-6 Years	4%
7-9 Years	0%
10+ Years	2%

Source: Lightcast Job Posting Analytics

Although the target audience for the C-DAS is public safety focused, there are substantial opportunities for cross-disciplinary application as well. Searching Maryland job postings from May 2022 through May 2023 using Lightcast Job Posting Analytics, filtered for the keyword "drone," the top five search results are all in fields outside of public safety. Table 6 lists these top five occupations in Maryland looking for drone skills and knowledge.

Table 6: Lightcast Top Five Occupations in Maryland Looking for Drone Skills or Knowledge (May 2022 – May 2023)

Top Occupations Looking for Drone Skills/Knowledge	Number of Unique Job Postings
Software Developer	180
Photographers	53
Recreation Worker	52
Computer Occupations, All Other	50
Information Security Analysts	46

Source: Lightcast Job Posting Analytics

4. **Provide data showing the current and projected supply of prospective graduates.**

Section D in this proposal provides a summary of C-DAS related credential offerings at Maryland institutions. Both title and CIP searches of MHEC's Academic Program Inventory and searches of Maryland college and university websites revealed no other upper-division certificates in drones and autonomous systems. Most of the current offerings are noncredit training courses and programs designed to prepare students for the FAA drone pilot certification exam. Since completion data are not available for these noncredit offerings, Table 7 below includes completion data for credit-bearing programs only.

Table 7: 2019-2023 Conferrals for Drone/Autonomous Systems and Adjacent Programs at Maryland Institutions

Academic Programs		Conferrals from 2019-2023				
		2019	2020	2021	2022	2023
Capitol Technology University	Bachelor of Science (B.S.) in Uncrewed and Autonomous Systems	0	0	0	0	1
Capitol Technology University	Master of Science (M.S.) in Uncrewed and Autonomous Systems	0	0	0	2	0
Carroll Community College	Lower-Division Certificate (L.D.C.) in Unmanned Aircraft Systems Pilot Safety	0	0	0	0	2
Carroll Community College	Associate of Applied Science (A.A.S.) in Small Unmanned Aircraft Systems	0	0	0	0	2

Academic Programs		Conferrals from 2019-2023				
		2019	**2020**	**2021**	**2022**	**2023**
Community College of Baltimore County	Associate of Applied Science (A.A.S.) in Professional Pilot – Unmanned Aircraft Systems	6	4	0	1	2
Hagerstown Community College	Unmanned Aerial Systems (UAS) Technician Certificate	0	0	0	0	0
University of Maryland Eastern Shore (UMES)	Bachelor of Science (B.S.) in Aviation Science (2 drone-related courses)	11	16	10	9	12

Source: Maryland Higher Education Commission, Trends in Degrees and Awards by Program, 2023

Table 8: Five-Year C-DAS Headcount Enrollment Projections

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Enrollment	25	30	35	40	45

Table 7 above shows that the current supply of graduates from Maryland's credit-bearing drone-related programs is relatively small, at 19 conferrals in 2023. Table 8 above shows UMGC's anticipated student enrollment during the first five years of the C-DAS. Once the certificate reaches a steady state, UMGC anticipates awarding approximately 30 certificates per year. Given the market need described in the sections above, even if all graduates from these programs chose to work in Maryland, the existing statewide supply of graduates in this field would still be wholly insufficient to satisfy market demand. Through this proposed program, UMGC is well-positioned to help fill these gaps and to expand opportunities for returning adult and working students, military-affiliated and veteran students, and career changers to further expand the workforce pipeline and diversify the profession.

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.**

    As the drone and unmanned aerial vehicle industry continues to expand, opportunities for specialized training, certifications, and continued education are increasingly important. A title and CIP search of MHEC's Academic Program Inventory as well as a search of college and university websites found that Maryland institutions offer a range of credit and noncredit drone-

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related courses, training programs, and credentials. However, these searches did not reveal any upper-division certificates (online or face-to-face) offered at four-year institutions. As shown in Table 9 below, many of the existing programs in Maryland focus on training and preparation for the FAA drone pilot certification exam.

UMGC's C-DAS is unique in that it does not focus on preparing students for certification as a drone operator or technician. Rather, this program focuses on knowledge and skills applicable to a multitude of industries using drone technology. The C-DAS addresses the need for workforce preparation and training for operators, managers, administrators, and support staff to understand operational opportunities and limitations to optimally utilize these systems. The certificate curriculum includes an introduction to drones and autonomous systems, history and background, applications, emerging off-the-shelf technologies, and breakthroughs in the public, defense, and commercial sectors. Students will acquire robust knowledge of related policies, laws, capabilities, and skills critical for success in the drone industry.

Table 9 identifies Maryland colleges and universities that have related course and credential offerings, grouped into the following three categories: drone/autonomous systems pilot preparation, drone/autonomous systems technical operations, and aviation and autonomous systems.

Table 9: Maryland Colleges and Universities with Related Credential Offerings

College/University	Program Type	Program Description
Drone/Autonomous Systems Pilot Preparation		
Anne Arundel Community College and Sinclair College National UAS Training & Certification Center	Noncredit UAS systems course	Prepares students for the FAA Part 107 certification exam. Provides basic ground school and flight school training for recreational and commercial flyers.
Alleghany College of Maryland	8-week drone pilot training course	Provides the skills and knowledge needed to operate a commercial or recreational drone safely and legally. Prepares students to pass the initial FAA Aeronautical Knowledge Test to obtain an FAA UAS Pilot's license. The course includes equal instructional time in the classroom as well as flying drones outdoors.
Community College of Baltimore County	Associate of Applied Science Degree (AAS) Professional Pilot, Airplane Professional Pilot, Helicopter	The AAS in Professional Pilot, Unmanned Aircraft Systems provides the required academic training to earn a Remote Pilot Certificate as a qualified commercial drone operator. It prepares students for employment in the UAS business and public service sectors, numerous government agencies, or military services.

College/University	Program Type	Program Description
	Professional Pilot, Unmanned Aircraft Systems Flight Training Certificate	
Carroll Community College	Noncredit FAA Remote Pilot in Command Certificate Course – UAS (Drone) Lower-Division Certificate (L.D.C.) in Unmanned Aircraft Systems Pilot Safety Associate of Applied Science (A.A.S.) in Small Unmanned Aircraft Systems	Prepares students for the FAA Part 107 Remote Pilot Certification teaching students how to operate a remote-controlled drone. Prepares students for the FAA Aeronautical Knowledge Test and for a career as a Commercial Drone Pilot, providing the theoretical knowledge and practical skills necessary to safely operate a small, unmanned aircraft system. AAS coursework focuses on safe sUAS operation for aerial video production, the collection and analysis of aerial and geospatial data, as well as piloting, maintenance, and flight requirements. Students learn the software and applications used to manipulate photos, video, and data captured by the drones. As part of this program, students prepare to earn their FAA Remote Pilot in Command Certificate and the USI sUAS Safety Certification.
Harford Community College	Unmanned Aerial Vehicle (UAV)/Drone Technology Certificate	Prepares students for the FAA Part 107 Certificate examination. It consists of in-classroom and hands-on training through the following courses: Introduction to Drone Technology, Drone Regulations and Preliminary Flight Training, and Part 107 Preparation and Drone Pilot Training.
Wor-Wic Community College	Course – UAS (Drone) FAA Remote Pilot Certification Prep and Flight Training	The course includes a full day of flight training using professional-grade drones and access to UAS flight simulation software.
Drone/Autonomous Systems Technical Operations		
Hagerstown Community College	Unmanned Aerial Systems (UAS) Technician Certificate	Prepares students for careers working with drones/uncrewed aerial systems. The program covers operations, mechanics, data processing, maintenance, and regulations that pertain to unmanned systems (14 credits of specific program requirements and 9 credits of restricted electives).

College/University	Program Type	Program Description
Montgomery College	3-credit course, NWIT 111: Unmanned Systems and Robotics Communication	This course takes a multidisciplinary approach to presenting unmanned systems and robotics communication, with theoretical and practical applications. The focus is primarily on unmanned aerial systems, but topics cover uncrewed surface and ground vehicles as well.
University System of Maryland at Southern Maryland (USMSM) Autonomous Research and Technology (SMART) Building	Course – Uncrewed aerial systems (UAS)	Serves as an academic and research facility. The course teaches the certification process, as well as how to build and fly drones.
Aviation and Autonomous Systems		
University of Maryland Eastern Shore	Bachelor of Science (B.S.) in Aviation Science 2 drone-related courses	Students take 34 core credits in aviation and choose one 33-credit concentration: Professional Pilot, Aviation Electronics, Aviation Management, or Aviation Software. Drone courses: ENAE 467: Design of Autonomous Aerial Systems (3 credits). An introduction to unmanned aerial vehicles, unmanned aircraft design, aerodynamics, aircraft structure, navigation, communication, and design of control sensor. AVSC 211: Unmanned Aircraft Operator Certification (3 credits). Prepares students to take the FAA Initial Unmanned Aircraft Operator's Knowledge Test.
Capitol Technology University	Bachelor of Science (B.S.) in Uncrewed and Autonomous Systems	Provides a foundation in flight operations, mission planning, special sensors, weapons, surveillance and data collection, aeronautical technologies, and ground control. Students design, construct, and fly an Uncrewed Aerial Vehicle (UAV). Students can become certified Uncrewed Aerial Systems Operators and gain the knowledge and skills to support governmental and commercial employers. Combines elements of computer science, robotics, engineering, and data analysis.
Capitol Technology University	Master of Science (M.S.) in Uncrewed and	Provides a foundation in uncrewed and autonomous systems policy, risk management, flight operations, mission planning, special sensors, weapons, surveillance and data collection, aeronautical

College/University	Program Type	Program Description
	Autonomous Systems	engineering, aeronautical technologies, and ground control. Students will develop policy and risk management plans for uncrewed and autonomous systems. Students in the program will also be able to become a certified Uncrewed Aerial Systems Operator and gain the knowledge and skills to support governmental and commercial employers.

2. Provide justification for the proposed program.

As demonstrated in the section above, the C-DAS is unique among offerings at Maryland institutions since it does not focus on training as a drone operator or technician, but rather on drone applications across a wide range of industries, drone regulations and policies, and the management of emerging and future drone technologies and systems. UMGC's C-DAS will diversify options for working-adult and military-affiliated student populations and respond to the adult learner's need for a variety of pathways to credentials in higher education. The C-DAS provides students with a stackable credential they can earn either independent of or while seeking a bachelor's degree. Credits earned completing the C-DAS are transferrable to UMGC's existing bachelor's degree programs in Criminal Justice, Homeland Security, and Public Safety Administration. The certificate also has immediate market value with respect to employment and career options. These innovative and flexible approaches to serving students are clearly consistent with UMGC's mission.

The C-DAS positions UMGC to continue to promptly respond to emerging market demands and conditions by adapting existing programs and services, refining operations, and deploying staff and faculty as warranted. Further, interdisciplinary collaboration with other schools and departments within UMGC, as well as another university, allows us to further our mission of embracing innovation and change. There are also several potential external collaborations that can be pursued through grant programs administered by the National Highway Traffic Safety Administration, National Institute of Justice, Bureau of Justice Assistance, Homeland Security, Federal Emergency Management Agency (FEMA); and corporate and private foundations such as Walmart, Target, and Amazon. Another area that has funding potential is the High Intensity Drug Trafficking Area (HIDTA), a multi-agency public safety task force through the Department of Justice. This task force operates nationwide involving local, state, and federal agencies together combating drug interdiction and reducing violent crime.

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.

A program title and CIP search performed on MHEC's online Academic Program Inventory found there are no upper-division certificates in drones and autonomous systems offered at Maryland's four HBIs. The University of Maryland Eastern Shore (UMES) Aviation Sciences program is Maryland's only public four-year bachelor's degree program in aviation. UMES offers a Bachelor of Science in Aviation Science with concentrations in Professional Pilot, Aviation Management,

Aviation Electronics, and Aviation Software. The UMES Engineering program includes ENAE 467: Design of Autonomous Aerial Systems, an on-campus course that focuses on unmanned aerial vehicles, manned and unmanned aircraft design, and conceptual unmanned aerial vehicles design.

UMGC and UMES are in the process of executing an MOU to offer UMES courses to students enrolled in the C-DAS, since UMES offers coursework that aligns with UMGC's proposed certificate program. The MOU will allow students from both institutions to apply six credits to the certificate by taking any two of the following UMES courses:

- AVSC 211: Remote Pilot – Small Unmanned Aircraft Systems Certification
- AVSC 310: Aerial Operations in Remote Sensing
- AVSC 442: Safety Management
- ETEE 365: Global Positioning and Navigation Systems Technology

Morgan State University, Bowie State University, and Coppin State University do not offer undergraduate degrees or certificates in aviation or drones and autonomous systems. UMGC's proposed fully online certificate program will, therefore, have no impact on high demand programs at HBIs.

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.**

A program title and CIP search performed on MHEC's online Academic Program Inventory found there are no upper-division certificates in drones and autonomous systems offered at Maryland's four HBIs. This includes the three HBIs in the University System of Maryland (Bowie State University, Coppin State University, and University of Maryland Eastern Shore) and Morgan State University. As discussed in Section E above, UMGC and UMES are forging a partnership to provide C-DAS students the opportunity to take drone-related coursework at UMES. UMGC's proposed program will, therefore, have no impact on the uniqueness and institutional identities and missions of Maryland's HBIs.

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

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

The C-DAS was designed according to UMGC's institutional learning goals to help students master academic and professional content with a balanced emphasis on technology and information literacy. This innovative certificate program was established to prepare students for a variety of career opportunities in the rapidly growing drone industry.

UMGC Collegiate Associate Professor Brian Powers, Program Director for Homeland Security, Intelligence, and Emergency Management, will oversee the implementation of the C-DAS. Professor Powers is a retired Air Force Officer who worked on multiple military unmanned aircraft system

(UAS) programs, including deployments to the Balkans, Iraq, and Afghanistan. In the private sector, he wrote multiple studies on the development and applications of future UAS programs.

Dr. Justin Baumgartner, UMGC Collegiate Associate Professor for Public Safety, will help maintain the drone-related courses in the program. Dr. Baumgartner is a licensed and highly proficient drone pilot experienced in developing several drone programs in support of Colorado law enforcement.

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

The learning outcomes established for the C-DAS follow industry requirements. The overarching goal is that students completing the program will have the knowledge to construct strategies for leading, managing, organizing, and coordinating drone operations for federal, state, local, and international governments, and private sector industries. The student learning outcomes that have been developed for the certificate are as follows:

- Discuss how the trends for military and civilian applications will impact the commercial and emergency management sectors.
- Analyze the ethics, laws, and regulations of unmanned autonomous systems both domestically and internationally.
- Articulate the different drone systems hardware and software used for data collection, storage, the analytical requirements, and system's life cycle.
- Compare and contrast research and development trends for military and civilian applications to commercial and emergency management sectors.
- Identify future capabilities and uses of UAS and UAV systems in various industry applications.

The proposed C-DAS is comprised of four core courses and two elective courses chosen from existing UMGC courses in Criminal Justice, Public Safety Administration, Emergency Management, and Homeland Security. The unique structure of the C-DAS sets it apart from other drone certificate programs, in that students will have the flexibility to select elective courses that best suit their knowledge requirements based on their individual academic interests or professional needs. Detailed information about the certificate courses, curriculum, and program requirements is included in Section 4 below.

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

   a) **Provide for assessment of student achievement of learning outcomes in the program.**
   b) **Document student achievement of learning outcomes in the program.**

UMGC approaches learning design from an "Understanding by Design" perspective, utilizing a backward design model. This approach begins with identifying the program learning goals that a student will achieve through the program of study. The program learning goals are mapped first to the Degree Qualification Program (DQP) to ensure that the goals are comprehensive and appropriate for the degree level. In addition, the program learning goals are mapped against UMGC institutional learning goals to validate that the program aligns with the university mission and institutional goals.

Once the program learning goals have been validated through mapping to the DQP and institutional learning goals, the program learning goals are mapped to the courses in the program. This step

ensures that all program learning goals are addressed in the curriculum and provide guidance in the development of courses to ensure that each course contributes to the program learning goals without unnecessary duplication of outcomes across courses. Through these mappings, key assignments are identified in courses for use in assessing student achievement of program learning goals. Periodically, a random sample of student artifacts for these identified key assignments are collected and reviewed by faculty to assess how effectively students are meeting the program learning goals.

Using student learning assessment results along with non-direct measures of student learning (including student retention and market and labor data), Program Directors produce an annual review of program quality. For new programs, these annual reviews are integrated into an Academic Program Review including external review after five years. After this initial review, programs continue the annual review cycle every year with an Academic Program Review every seven years. Summaries and results from each five-year and seven-year program review are submitted to the University System of Maryland in accordance with their established review cycle.

In November 2020, UMGC licensed AEFIS as its assessment management system. AEFIS is the central repository for program learning goals, assessment maps, and student artifacts. AEFIS integrates with the LEO learning management system to allow student work to be duplicated from LEO into AEFIS for assessment purposes. This process ensures that assessment review is independent of grades and evaluation within individual courses and allows for independent review of student work apart from the classroom faculty. AEFIS also houses all annual program review reports.

The curriculum for the C-DAS has been developed following the principles of competency-based and performance-based learning. The required competencies comprising the certificate's learning outcomes, curriculum, and assessments have been developed by academic and professional experts in the field of public safety and unmanned autonomous systems. This approach is learner-focused, with authentic assessments embedded in each step of the learning process.

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

Students enrolled in the 18-credit C-DAS are required to complete four 3-credit C-DAS core courses (12 credit hours) and two 3-credit elective courses (6 credit hours).

- DRON 300: Fundamentals of Drones and Autonomous Systems
- DRON 305: Drones and Autonomous Systems: Applications
- DRON 310: Drones and Autonomous Systems: Regulations & Policies
- DRON 315: Drones and Autonomous Systems: Emerging Technologies & Future Systems
- 2 Electives

Table 10 lists the four required C-DAS core courses with course descriptions. Table 11 includes the list of eight C-DAS elective options from UMGC's existing coursework in Criminal Justice, Public Safety Administration, Emergency Management, and Homeland Security. All elective course descriptions are included in Appendix A.

Table 10: C-DAS Core Courses and Descriptions

Course Title	Course Description
DRON 300: FUNDAMENTALS OF DRONES AND AUTONOMOUS SYSTEMS (3 Credits)	This course is an introduction to the Drones and Autonomous Systems sector. The emphasis of this course is to introduce the fundamentals of Unmanned Aerial Systems (UAS), along with examining the historical establishment of drone operations. Topics include early autonomous operations, general applications of initial drone technology, evolution of capabilities, and sensors, along with current private sectors and public markets utilizing drone technology.
DRON 305: DRONES AND AUTONOMOUS SYSTEMS: APPLICATIONS (3 Credits)	Drones and Autonomous Systems: Applications, explores specific applications of Unmanned Autonomous Systems (UAS) in the public and private professions. This includes how drones are applied in current UAS operations, along with payloads, communication, and current technological limitations. Topics include commercial, law enforcement, public safety, Homeland Security, and military utilization, along with capability-based scenarios.
DRON 310: DRONES AND AUTONOMOUS SYSTEMS: REGULATIONS & POLICIES (3 Credits)	Drones and Autonomous Systems: Regulations and Policies emphasize the legal characteristics of drone operations. This includes air traffic control (ATC), flying in proper airspace/airspace deconfliction, in addition to constitutionality and ethical considerations while operating autonomous systems. Flight crews, risk assessment, and logistical flight considerations are explored in-depth. Topics include regulatory requirements, professional licensing processes, Federal Aviation Administration (FAA) waivers, organization policy creation, and pre-flight/post-flight inspections.
DRON 315: DRONES AND AUTONOMOUS SYSTEMS: EMERGING TECHNOLOGIES & FUTURE SYSTEMS (3 Credits)	Drones and Autonomous Systems: Emerging Technologies and Future Systems integrates information from forecasted technological advancements currently under development, along with artificial intelligence (AI), machine learning, beyond visual line of site (BVLOS) operations, and next generation applications. Commercial growth opportunities are reviewed, along with support level career pathways. Counter-drone applications are explored, incorporating current threats that are being reviewed from a local and global perspective. Topics include counter-drone operations, urban utilization of Vertiports/Vertistops, advancement in artificial intelligence integrated technology, and autonomous capabilities outside of flight operations.

Table 11: C-DAS Elective Courses

Elective Subject Area	Course #	Course Title
Criminal Justice (CCJS)	CCJS 100	Introduction to Criminal Justice (3 Credits)
	CCJS 340	Law Enforcement Administration (3 Credits)
Public Safety Administration (PSAD)	PSAD 302	Concepts of Emergency Management (3 credits)
	PSAD 410	Public Safety Research and Technology (3 Credits)
Emergency Management (EMGT)	EMGT 302	Concepts of Emergency Management (3 credits)
	EMGT 304	Emergency Response Preparedness and Planning (3 credits)

Elective Subject Area	Course #	Course Title
Homeland Security (HMLS)	HMLS 302	Introduction to Homeland Security (3 credits)
	HMLS 406	Legal and Political Issues of Homeland Security (3 credits)

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

Not Applicable

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

Not Applicable

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

Not Applicable

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

UMGC maintains a comprehensive public website that houses all current information about its programs. Students have online access to degree requirements, course catalogs, course schedules, and other pertinent information. The website also provides specific and clear information and resources about **technology requirements** for UMGC students, **information and training on the learning management system**, and **other additional resources** to maximize each student's learning experience. A variety of online support services are available to students for academic assistance (**Tutoring**, **Writing Center**), as well as **advising**, **accessibility accommodations**, **career services**, **tuition planning**, **financial aid**, and **technical support**.

UMGC's **Student Handbook** is available online and serves as a general guide for all students with respect to policies, procedures, rules, regulations, and general academic requirements for all students. In addition, the annual UMGC **Catalog** includes extensive information about expectations and individual requirements for each academic program as well as university policies, resources, and services for students.

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

All academic program-related communications (including advertising, recruitment, and admission materials) are developed in conjunction with UMGC-wide institutional communication strategies which adhere to the principle of truth in advertising. All written and electronic materials prepared for prospective students for the purpose of recruitment will clearly and accurately represent the courses, programs, and services available.

H. Adequacy of Articulation

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

Not Applicable

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

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

UMGC's faculty staffing model employs full-time faculty (known as Collegiate Faculty) in faculty leadership roles, such as Department Chairs and Program Directors, with responsibility for the overall intellectual coherence and integrity of the curriculum and program. Other Collegiate Faculty teach and serve in complementary roles that maintain and support the academic program, providing input into the design and content of the program and courses. This core group of full-time Collegiate Faculty also mentors and supports the adjunct faculty teaching in the program.

In keeping with UMGC's emphasis on workplace relevance, most faculty teaching in the C-DAS will be credentialed, practicing professionals who teach part-time for UMGC. These adjunct faculty provide instruction for the majority of courses (which is true for all programs at all levels at UMGC). This model is responsible for one of UMGC's greatest strengths: scholar-practitioner faculty who have solid academic credentials and continue to work outside the university, providing a continuous infusion of current workplace knowledge, career relevant perspectives, and maximum flexibility for adapting to changing student demand and rapidly changing industries and technologies. In this way, UMGC supports students in a learning experience that is practical and relevant to today's competitive and evolving global marketplace.

Collegiate and adjunct faculty both hold academic rank and title, based on their academic qualifications and professional experience, including teaching experience at UMGC. Since 1996, UMGC has held an MHEC-approved waiver for the Code of Maryland (COMAR) requirements for total credit hours taught by full-time faculty (see documentation provided in Appendix B).

The centrality and appropriateness of UMGC's faculty model relative to its educational mandate and mission were reaffirmed by MHEC in its 2016 review of mission statements, as evidenced in the following excerpt from the Commission's report:

> *"UMUC intentionally seeks highly-qualified full-time and adjunct faculty who have hands-on experience in the disciplines they teach and who can leverage that experience to provide a richer learning experience for students. The university's mission to serve adult students is supported by adjunct faculty who are scholar-practitioners engaged daily in their profession. The ability to employ adjunct faculty is critical to UMUC's capacity to quickly deploy academic*

and continuing education programs in response to workforce-related needs. This entrepreneurship and flexibility in establishing new programs is particularly important to the university: given its history of very limited state support, the university's financial model is based on tuition revenues, and all programs must be self-supporting.[1] "

Consistent with this model, the School of Integrative and Professional Studies already has an active roster of faculty who are qualified and prepared to teach courses in this program, and the university constantly recruits additional adjunct faculty as needed. Table 12 below provides a partial list of faculty who are anticipated to teach in the certificate program, their appointment type and rank, their graduate degree(s) and fields(s), and the courses they are qualified to teach.

Table 12: Faculty Resources

Faculty Name	Appointment Type and Rank	Graduate Degrees	Field(s) of Study	Course(s) to be Taught
Kathleen Mitchell	Collegiate Faculty (Full-time)	Ph.D., M.Ed., M.S.	Education; Adult and Continuing Education	DRON 300: Fundamentals of Drones and Autonomous Systems
Justin Baumgartner	Collegiate Faculty (Full-time)	Ph.D., M.S.	Administration; Administration of Justice	DRON 305: Drones and Autonomous Systems: Applications
Carl Wertman	Adjunct Associate Professor (Part-time)	A.B.D., M.S., M.A.	Emergency Management; International Relations	DRON 310: Drones and Autonomous Systems: Regulations & Policies
Brian Powers	Program Director & Collegiate Faculty (Full-time)	M.S., M.A., M.A.	National Security; Management; International Relations	DRON 315: Drones and Autonomous Systems: Emerging Technologies & Future Systems
Chris Swain	Program Director & Collegiate Faculty (Full-time)	J.D.	Law	CCJS 100: Introduction to Criminal Justice
Murat Elahi	Adjunct Associate Professor (Part-time)	Ph.D., M.A.	Criminal Justice; Homeland Security Management	CCJS 340: Law Enforcement Administration
Kyle Overly	Adjunct Associate Professor (Part-time)	Ph.D., M.S.	Public Administration; Fire & Emergency Management	PSAD 302: Introduction to Public Safety

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[1] Source: Maryland Higher Education Commission (December 2015), Mission Statement Review: https://mhec.maryland.gov/institutions_training/Documents/acadaff/2016MissionStatementReview.pdf.

Faculty Name	Appointment Type and Rank	Graduate Degrees	Field(s) of Study	Course(s) to be Taught
				Administration
Kelly Scarlett	Adjunct Associate Professor (Part-time)	J.D.	Law	PSAD 410: Public Safety Research and Technology
Ralph Hutton	Collegiate Faculty (Full-time)	M.S.	Disaster Science	EMGT 302: Concepts of Emergency Management
Robert Ditch	Adjunct Associate Professor (Part-time)	Ph.D., M.A.	Education; Public Health	EMGT 304: Emergency Response Preparedness and Planning
Mark Murtha	Collegiate Faculty (Full-time)	M.S.	Criminal Justice	HMLS 302: Introduction to Homeland Security
Mark Landahl	Adjunct Associate Professor (Part-time)	Ph.D., M.A.	Fire & Emergency Management; Homeland Defense	HMLS 310: Homeland Security Response to Critical Incidents

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.**

Through Faculty Development, part of the university's Integrative Learning Design unit, UMGC supports its worldwide faculty by providing quality professional development programs and services that are accessible, responsive, comprehensive, and innovative. UMGC provides frequent faculty development workshops and webinars focused on effective online pedagogy, including topics such as providing effective feedback; scaffolding student learning; digital literacy; academic integrity; classroom assessment techniques; accessibility; and diversity, equity, and inclusion in the classroom.

UMGC is committed to providing pedagogy training in support of student learning throughout the faculty life cycle with the institution. FACDEV 411, New Faculty Academic Orientation, is a required two-week, facilitated online class that is designed to welcome new faculty to UMGC and provide information about UMGC's history, mission, values, and students, while preparing faculty to teach online. It is taught by experienced UMGC adjunct faculty. The course covers the history of UMGC, pedagogy of adult learning, facilitating online learning, accessibility, and providing additional support and resources for students through UMGC's Library, Effective Writing Center, Office of Academic Integrity & Accountability, and Office of Accessibility Services.

b) The learning management system.

UMGC provides multiple touchpoints to ensure faculty have a thorough orientation to and continued education about our learning management system, Desire2Learn (D2L). Building on the topics and materials provided in FACDEV 411, UMGC offers online faculty workshops on topics such as grading and coaching strategies; the integration of audio and video feedback to students; gradebook setup and rubrics; crafting powerful online introductions; and open education resources (OERs) used in the classroom.

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

In addition to the strategies outlined above, UMGC has recognized the need to equip faculty more comprehensively with knowledge and skills to help increase classroom engagement and support student learning, satisfaction, and retention. In 2021, UMGC launched an additional two-week facilitated training course, FACDEV 112: Coaching Learning and Academic Success Strategies. This course focuses on the development of faculty coaching skills to create an active and motivating presence in the online classroom and to establish helpful and supportive relationships with students, leading to persistence and academic success. To date, over 2,000 UMGC faculty have completed this course.

This addition to UMGC's training catalog is designed to help reduce the distance between faculty and students inherent in online courses. Developed and taught by UMGC faculty, FACDEV 112 emphasizes specific strategies for facilitating consistent and meaningful faculty-student interactions and provides guidance for implementing personalized and actionable academic coaching and feedback.

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.**

No new library resources are needed to serve the C-DAS. In partnership with faculty and program designers, the UMGC Library annually reviews and maintains a curated collection of academic and professional journal articles, reports, case studies, and books available electronically via a comprehensive set of online library databases to support academic programs. A librarian liaison is designated for each academic department at UMGC to assist faculty with resource identification and other program needs.

The UMGC Library relies on distributed technology as its primary mechanism to provide online access to resources and services to UMGC's widely dispersed adult student population. Library services to all UMGC students, faculty, and staff worldwide include 24/7 reference via live chat and document delivery for materials not otherwise available in the library databases. UMGC's expanding collection of over 75,000 electronic books (e-books) has significantly increased the ability to meet the academic needs of UMGC's global population.

The UMGC Library provides research assistance in developing search strategies, selecting relevant databases, and evaluating and citing sources in a variety of formats, including online webinars

offered globally. A discovery tool allows simultaneously searching of scholarly articles, books, and other research resources via a single search engine of most of the databases to which the UMGC Library subscribes. Resources on the UMGC Library website provide a listing of resource guides for academic subject areas and topics, including relevant databases, websites, books, and other resources along with technical and citation assistance.

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

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

The C-DAS will be offered fully online using the university's distance education platform. Select courses may be taught in a hybrid format at locations where UMGC offers classroom instruction, including regional higher education centers, military bases, and overseas in Europe and Asia. Existing resources related to facilities, infrastructure, and equipment are adequate to meet the program's needs.

2. **Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to:**

   a) **An institutional electronic mailing system, and**

   b) **A learning management system that provides the necessary technological support for distance education.**

UMGC has an internal email network that provides all students and faculty with consistent email domains, @student.umgc.edu and @faculty.umgc.edu, respectively. Students are encouraged but not limited to using this email address in all communications with the university. Faculty are required to use their UMGC address for teaching and all official UMGC communications.

UMGC's learning management system is Desire2Learn (D2L); the internal adaptation is called LEO. All UMGC classes are taught using this system and all students with appropriate technology and online access (referenced in Section G8) have access to this system through their learning portal.

Support is available for students and faculty through a 24/7 Help Desk and a large variety of online resources on UMGC's website.

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

1. **Complete Table 1: Resources and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.**

As shown in Table 13 below, the C-DAS is expected to be self-supporting from inception. No new General Funds are required for the implementation of this program. If necessary, resources will be reallocated internally within the department during the first year. The credit hour tuition rate is based on UMGC's current and projected in-state tuition rates. Consistent with UMGC's demographics and student enrollment patterns, Table 13 assumes that all students will be enrolled part-time in the certificate program, completing an average of nine credits per year. Enrollment and revenue projections are based on new students entering the program.

Table 13: Resources

Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	0	0	0	0	0
2. Tuition/Fee Revenue (c + g below)	69,525	72,327	75,242	78,274	81,428
a. Number of F/T Students	0	0	0	0	0
b. Annual Tuition/Fee Rate	0	0	0	0	0
c. Total F/T Revenue (a x b)	0	0	0	0	0
d. Number of P/T Students	25	26	27	27	28
e. Credit Hour Rate	309	312	315	318	322
f. Annual Credit Hour Rate	9	9	9	9	9
g. Total P/T Revenue (d x e x f)	69,525	72,327	75,242	78,274	81,428
3. Grants, Contracts, & Other External Sources	0	0	0	0	0
4. Other Sources	0	0	0	0	0
TOTAL (Add 1 - 4)	**$69,525**	**$72,327**	**$75,242**	**$78,274**	**$81,428**

2. **Complete Table 2: Program Expenditures and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category.**

UMGC's existing base of FTE faculty, administrative staff, and support staff in the School of Integrative and Professional Studies will support the new certificate program. In Table 14 below, benefits are calculated at current standard rates of 8% for adjunct faculty and 37% for administrative and support staff. In Row 1.b., the adjunct faculty salary is the median salary for an adjunct associate professor with a terminal degree at longevity step 11 on UMGC's adjunct faculty pay scale. In Row 7, the expenditure listed is for new course development. There are no expenses

anticipated for technical support or equipment, library resources, or new or renovated space to support the program.

Table 14: Program Expenditures

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	11,693	11,927	24,331	24,818	25,314
a. Number of FTE	0.30	0.30	0.60	0.60	0.60
b. Total Salary	10,827	11,044	22,529	22,979	23,439
c. Total Benefits	866	883	1,802	1,838	1,875
2. Admin. Staff (b + c below)	29,678	30,569	31,486	32,430	33,403
a. Number of FTE	0.14	0.14	0.14	0.14	0.14
b. Total Salary	21,663	22,313	22,982	23,672	24,382
c. Total Benefits	8,015	8,256	8,503	8,759	9,021
3. Support Staff (b + c below)	2,128	2,192	2,257	2,325	2,395
a. Number of FTE	0.02	0.02	0.02	0.02	0.02
b. Total Salary	1,553	1,600	1,648	1,697	1,748
c. Total Benefits	575	592	610	628	647
4. Technical Support/Equipment	0	0	0	0	0
5. Library	0	0	0	0	0
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses	0	0	0	0	0
TOTAL (Add 1 – 7)	$43,499	$44,687	$58,074	$59,573	$61,112

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.

UMGC has developed an annual program review process that includes assessment of student learning, as described earlier, along with non-direct measures of student learning including course

evaluations, retention and graduation rates, and program surveys administered in all capstone courses. As part of this process, external data are collected, including enrollment in related programs at other institutions and employment trends in relevant labor markets. UMGC's mission for career relevant education requires that the curriculum and program learning goals are maintained in the context of changing needs in labor markets and required skills for graduates.

As part of UMGC's annual program review, courses within the program portfolio are evaluated for course health. This includes student success rates within each course and course reenrollment rates (i.e., how many students in the course reenroll at the university in the following term). In addition, student course evaluations are administered every term for every course. Data are aggregated in academic dashboards at the course level to allow program leaders and faculty to evaluate the effectiveness of the course curriculum and delivery. When a course is scheduled for revision, all adjunct faculty teaching the course are surveyed to provide input to the faculty and instructional designers revising the course.

Full-time faculty are reviewed at least every two years. Adjunct faculty are reviewed on a course-by-course/term basis. Student course evaluations provide an opportunity for all faculty to receive both quantitative and qualitative feedback on their teaching.

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.**

UMGC's faculty, academic administrators, and Office of Academic Quality collaborate to implement assessment activities, monitor ongoing developments, review results, and make appropriate curricular or other modifications. Annually, student performance across learning demonstrations is evaluated to determine where improvements may be required. Program Directors and Collegiate Faculty visit online classrooms at a regular frequency to track faculty performance and take any necessary corrective actions in a proactive manner. Class observations are documented and used in subsequent faculty staffing decisions. Changes are also made to the curriculum and/or student support models, as needed. Additional evaluation includes tracking of student retention, grade distributions, and cost-effectiveness. Regular academic program reviews consider all factors related to academic quality, curriculum currency and relevance, student support, and adequacy of program infrastructure and resources. These processes all support a continuous cycle of improvement.

N. Consistency with the State's Minority Student Achievement Goals (as outlined in COMAR 13B.02.03.05)

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

UMGC seeks to reflect the diversity of the global communities we serve. Cultural differences are recognized, valued, and considered essential to the educational process. Our welcoming of diverse perspectives differentiates us and drives innovation. UMGC provides an academic environment in which diversity is not only articulated as one of the institutional core values, but it is reflected in the university's ethnically and racially diverse student body, faculty, and staff and our proven record of providing higher education access to underrepresented students. UMGC's Integrative Learning Design unit and Office of Diversity and Equity collaborate to ensure a robustly inclusive curriculum that is built around UMGC's focus on project-, scenario-, and problem-based learning, which have been found to be the most effective learning approaches for adult students. The Integrative Learning Design team is trained and proficient in Universal Design for Learning and provides

leadership on matters of inclusive design for all learning experiences, courses, and programs at UMGC.

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.

Not Applicable

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.

UMGC is approved to offer distance education by the Middle States Commission on Higher Education (MSCHE) and maintains compliance with COMAR 13B.02.03.22. UMGC's approval to offer distance education as an alternative delivery method is included within its scope of institutional accreditation, as evidenced in the university's MSCHE **Statement of Accreditation Status**. Further, UMGC has been an approved institutional participant in the State Authorization Reciprocity Agreement (SARA) since 2016 and is authorized to offer distance education in all SARA states. Among its many recognitions, UMGC has received five Sloan Consortium (now Online Learning Consortium) Excellence Awards for online program quality and three IMS Global Learning Consortium awards for technology integration in the classroom environment.

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

UMGC was an early provider of off-campus educational opportunities for students and one of the first universities in Maryland to develop fully online courses and programs. UMGC has been a leader among public institutions in providing quality and affordable online education and has been providing distance education to the nation's service members and their families, residents of the State of Maryland, and those who live outside of Maryland for more than 75 years. Additionally, UMGC's Europe and Asia divisions offer hybrid and onsite classes to fulfill DOD contract requirements and meet the needs of military-affiliated learners overseas. Stateside, all onsite classes, with the exception of an occasional accelerated offering, are offered in hybrid format, blending onsite and online delivery.

UMGC's distance education offerings are in full compliance with **C-RAC's 2011 Guidelines**.

Appendix A

Elective Course Options in the Upper-Division Certificate in

Drones and Autonomous Systems

Course Titles	Course Descriptions
CCJS 100: Introduction to Criminal Justice (3 credits)	An introduction to the three primary components of the criminal justice system: law enforcement, courts, and corrections. The objective is to identify the components of the system, the practitioners within the system and their role in policy formation and implementation, and the major theoretical tenets of criminal behavior. Topics include community relations, the impact of criminal behavior, and the importance of research in the field of criminal justice.
CCJS 340: Law Enforcement Administration (3 credits)	An introduction to organization and management in law enforcement. The objective is to communicate effectively and apply research skills and management and administrative principles to a law enforcement agency. Topics include structure, process, policy and procedure, communication and authority, division of work and organizational controls, the human element in the organization, and informal interaction in the context of bureaucracy.
PSAD 302: Introduction to Public Safety Administration (3 credits)	An introduction to public safety organizations and the functions of administrators within these organizations. The objective is to identify key functions of public safety administration and describe the history and current forces and trends facing public safety administrators. The history, development, growth, and future of various interdependent public safety entities is examined from an interdisciplinary perspective. Topics include key responsibilities of administrators in public safety administration.
PSAD 410: Public Safety Research and Technology (3 credits)	An examination of research and the applications of technology in public safety administration. The goal is to describe the principles of scientific research; evaluate existing research and technology; and apply the methods and resources of research, science, and technology to public safety administration. Topics include scientific research, research methodology, technology, and the evaluation and use of research and technology in public safety administration.
HMLS 302: Introduction to Homeland Security (3 credits)	An introduction to the theory and practice of homeland security in both the public and private sector at national, regional, state, and local levels. The objective is to apply management concepts to homeland security, identify legal and policy issues related to homeland security, and compare the four phases of homeland security. An overview of the administrative, legislative, and operational elements of homeland security programs and processes (including a review of homeland security history, policies, and programs) is provided. Topics include the threat of terrorism and countermeasures, including intelligence, investigation, and policy that support U.S. homeland security objectives.
HMLS 406: Legal and Political Issues of Homeland Security (3 credits)	A study of the legal aspects of and public policy in homeland security. The aim is to analyze governmental and private-sector roles and form a model homeland security policy. The development of public policy in homeland security is examined at local, regional, national, and international levels. Topics include surveillance, personal identity verification, personal privacy and redress, federal legislation passed in the aftermath of the terrorist attacks of 2001, the rights of foreign nationals, the rights of U.S. citizens, the governmental infrastructure for decisions concerning legal rights, and

Course Titles	Course Descriptions
	the difficulties of prosecuting terrorist suspects (such as jurisdictional issues, rules of evidence, and prosecution strategies).
EMGT 302: Concepts of Emergency Management (3 credits)	An introduction to emergency management at the global, national, regional, state, and local levels. The objective is to identify and analyze forces that formulate policy, apply the principles of policy and law to real-world situations, and analyze emerging political, legal, and policy issues to improve organizational preparedness. Topics include preparedness, mitigation, response, and recovery. The history of emergency management is reviewed, and its future in government and industry is discussed.
EMGT 304: Emergency Response Preparedness and Planning (3 credits)	A study of the planning process, format, and response procedures for disasters and emergency events. The goal is to evaluate risk vulnerabilities and capabilities, design an emergency plan, and evaluate and critically assess an emergency plan. Topics include risk assessment, modeling, hazard analysis, vulnerability assessment, and response capability assessment. Discussion also covers the evaluation of plans and the use of exercises to improve and implement plans.

Appendix B
Full-Time Faculty and Library Waivers

90.2.1.001

cc: LEL
Bob J.

MHEC
Creating a state of achievement

MEMORANDUM

Office of the Provost
UMUC

JAN 1 0 2005

DATE: January 6, 2005

TO: Dr. Nicholas H. Allen
          Provost and Chief Academic Officer, UMUC

FROM: Michael J. Kiphart, Ph.D. MJK
          Assistant Secretary for Planning and Academic Affairs

SUBJECT: UMUC Waiver of Full-Time Faculty and Library/Learning Resources Center

According to our records, UMUC's request for a waiver of full-time faculty and library/learning resource center went before the Education Policy Committee on January 16, 1996. The Education Policy Committee approved for the University a waiver of the definition of full-time faculty and library/learning resource center as provided for in the Commission's *Minimum Requirements for Degree-Granting Institutions,* and further, that the Commission instruct the Secretary of Higher Education to review the University at regular intervals to assure that the University was in compliance with the applicable provisions of the waiver to the minimum requirements.

On February 15, 1996, the matter went before the Commission and an amended recommendation was approved. The Commission approved for the University a waiver of the requirements for total credit hours taught by full-time faculty and for a waiver of the requirements for a minimum library collection for the Library/Learning Resource Center as provided for in the Commission's *Minimum Requirements for Degree-Granting Institutions.* Further, the Commission instructed the Secretary of Higher Education to review the University at regular intervals to assure that the University was in compliance with the applicable provisions of the waiver to the minimum requirements. The Commission also approved a recommendation that the Faulty Advisory Council and Student Advisory Council recommendations be referred to the University of Maryland System Board of Regents.

Enclosed are documents supporting the approval of the waiver. Should you require additional assistance, please contact David Sumler, Director of Academic Affairs – Planning and Policy, at 410-260-4533 or dsumler@mhec.state.md.us.

MJK:aaw
Enclosures

cc: to files

Forward through for appropriate action VR Comm. on Bd. Policy

April 23, 1996

Mr. Lance W. Billingsley, Esq.
Chairman, Board of Regents
University of Maryland System
3300 Metzerott Road
Adelphi, MD 20783

Parris N. Glendening
Governor

Edward O. Clarke, Jr.
Chairman

Patricia S. Florestano
Secretary of
Higher Education

Dear Mr. Billingsley:

At its February 15, 1996 meeting, the Maryland Higher Education Commission considered a request by University of Maryland University College for a waiver of the Commission's minimum requirements in the area of full-time faculty and library resources. The Commission has granted the waiver.

In the discussion of the waiver and related issues, both the Faculty Advisory Council and the Student Advisory Council to the Commission raised issues which the Commission felt were more appropriately addressed by the University of Maryland's governing board. Therefore, I am forwarding to you the resolutions submitted to the Commission by these two advisory councils, in addition to the relevant materials considered by the Commission in granting the waivers.

Consistent with the final recommendations of the Commission on this matter, I would appreciate a review of these issues by the Board of Regents. I would also appreciate receiving the results of that review when it is completed. Since the academic year is coming to a close, I realize that any reaction on the part of the Board of Regents may be delayed until next fall. In light of that schedule, could you please supply the Commission with the Board of Regents' position by November 1, 1996.

Sincerely,

Edward O. Clarke, Jr. (CT)

Edward O. Clarke, Jr.
Chairman

EOC:PSF:JAS:ds

Enclosures

cc: Dr. Patricia S. Florestano
Dr. Donald N. Langenberg