Office Use Only: PP#

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

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|---|---|
| Institution Submitting Proposal | University of Maryland Eastern Shore |

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

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

Payment Submitted: ◉ Yes ○ No | Payment Type: ◉ R*STARS # JE351049 ○ Check # JE351049 | Payment Amount: 850.00 | Date Submitted: 11/13/202

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|---|---|---|
| Department Proposing Program | Department of the Built Environment | |
| Degree Level and Degree Type | Post-Baccalaureate Certificate | |
| Title of Proposed Program | Career and Technology Education | |
| Total Number of Credits | 12 | |
| Suggested Codes | HEGIS: 83901.00 | CIP: 13.1301 |
| 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: 2024 |
| Provide Link to Most Recent Academic Catalog | URL: https://wwwcp.umes.edu/tech/pte/ | |
| Preferred Contact for this Proposal | Name: Dr. Tyler Love | |
| | Title: Professor, Director of Career and Technology Education Studies | |
| | Phone: (410) 727-4808 | |
| | Email: tslove@umes.edu | |
| President/Chief Executive | Type Name: Dr. Heidi M. Anderson | |
| | Signature: | Date: 03/15/2024 |
| | Date of Approval/Endorsement by Governing Board: | |

Revised 1/2021

**UNIVERSITY SYSTEM OF MARYLAND INSTITUTION PROPOSAL FOR**

| | |
|---|---|
| | New Instructional Program |
| | Substantial Expansion/Major Modification |
| | Cooperative Degree Program |
| | Within Existing Resources |
| | Requiring New Resources |
| X | New Certificate Program within an Existing Degree Area |

University of Maryland Eastern Shore (UMES)
Institution Submitting Proposal

Career and Technology Education
Title of Proposed Program

| | |
|---|---|
| Post-Baccalaureate Certificate | Summer 2024 |
| Award to be Offered | Projected Implementation Date |
| **0839-01** | **13.13009** |
| Proposed HEGIS Code | Proposed CIP Code |
| Department of the Built Environment | Dr. Tyler Love |
| Department in which program will be located | Department Contact |
| 410-727-4808, ext. 164 | tslove@umes.edu |
| Contact Phone Number | Contact E-Mail Address |
| | |
| Signature of President or Designee | Date |

## A. Centrality to Institutional Mission and Planning Priorities:

***1. Description of program and how it relates to institution's approved mission.***

The Post-Baccalaureate Certificate (PBC) in Career and Technology Education (CTE) will provide a documented certificate to conditionally certified CTE teachers in Maryland who are working towards completing their required coursework for the Standard Professional I teaching license. The four courses are one of three requirements for the teachers to complete their Professional and Technical Education (PTE) certification from the Maryland State Department of Education. The other requirements are passing a basic teaching examination (Praxis II and ACT, SAT, or GRE) and work experience.

The rigorous 12 credit program will consist of four required courses, generally completed over a one and a half year period. The courses are intended for new teachers in CTE who transfer from the work world into teaching based on their technical and work credentialed experiences. The courses will teach them the skills needed to instruct secondary students and cover advanced teaching content in the areas of standards-based instruction and methods, laboratory management, providing disciplinary literacy in the areas of reading, writing and mathematics, and differentiating instruction for students of all abilities. The courses are currently being offered on a non-degree seeking basis to teachers, or the courses can be applied toward the Master's degree in CTE which UMES currently offers.

The program will be offered at a location that serves the larger concentration of CTE teachers in the greater Baltimore region with smaller cohorts across the state. Most courses are hybrid, meeting every other week in the evening through synchronous Google Meet sessions and/or UMES classrooms in the Baltimore Museum of Industry. All courses are housed in Canvas, making them accessible to teachers across the state 24/7.

The proposed CTE certificate program provides basic teaching content *grounded in distinctive learning, discovery and engagement opportunities to new Maryland teachers in the fields of technology, engineering, agriculture, business, health* and other CTE career clusters. The content areas of CTE are unique in their use of authentic skill and project-based learning in laboratory settings. The certificate courses are specific to this need, thereby meeting the first part of the UMES Mission Statement.

### UMES Vision, Mission, and Values

Vision: The University of Maryland Eastern Shore (UMES) will be the preeminent public Historically Black University that is recognized for leadership in student-centered education, exceptional research, innovation, and inclusiveness.

Mission: As a public 1890 land-grant Historically Black University that embraces diversity, UMES is committed to serving first-generation and underserved students and providing educational, research, and community engagement opportunities to transform the lives of its students who will impact the state, region, and the world.

Values: Family, Student-centered, pride, collaboration, communication.

UMES is a student-centered, high research activity (Carnegie R2 classification), STEM-dominant doctoral research degree-granting university known for its nationally accredited undergraduate and graduate programs, applied research, and highly valued graduates from unique programs. UMES prepares graduates to address challenges in a global knowledge-based economy, while maintaining its commitment to meeting the workforce and economic development needs of the Eastern Shore, the state, the nation and the world.

The UMES vision of "*student-centeredness*" is addressed through the courses being embedded into Canvas, an online learning system. Students (many of whom are employed full time as teachers in Maryland's 24 local public school systems), will be able to work ahead on assignments to meet the needs of adult learners and full time working adults. They will receive feedback on their papers in a timely manner. Synchronous classes will continue to be scheduled from 5-8pm on week nights, allowing the teachers to come to class without having to take leave time from their public school systems. In person classes can be offered during the summer sessions for those that are within reasonable driving distance to Baltimore, and other students from a distance can be brought in via webcam to facilitate interactive learning experiences. The location in Baltimore allows enough time for teachers from surrounding counties to easily access classes in person. For students in more remote locations, classes will continue to be offered through Google Meet and Canvas so that the program can serve the needs of all school systems and educators across Maryland.

The proposed certificate will meet the mission element of "*serving first-generation and underserved students and providing educational, research, and community engagement opportunities".* The classes reflect the ethnic diversity of Maryland and specific lessons provide opportunities for educators to reflect on instructional strategies that foster success for all students. Active participation in the CTE school system director meetings held quarterly each year has helped to inform and continually align content and course expectations to increase the rigor of what UMES is offering. This has also helped to ensure courses remain aligned with COMAR regulations and address new initiatives set forth by Blueprint for Maryland's Future. This collaboration with local school system CTE Directions has made the UMES PTE coursework more valued by educators and school systems in Maryland because it better prepares educators, which research shows can improve teacher retention.

The PTE pathway and CTE program at UMES is committed to "*transform the lives of its students who will impact the state, region, and the world*" by providing coursework that reflects Maryland COMAR Regulation 13a-12.02.15 (Professional and Technical Education Grades 7-12), Maryland State Department of Education – Office of College and Career Pathways priorities, and emerging research on effective instruction and assessment in CTE (e.g., ACTE Quality CTE Program of Study Framework). The program will serve the education needs of school systems and professional associations by providing a one stop location for all four courses that were developed specifically to meet the COMAR PTE requirements.

***2. How the proposed program supports institution's strategic goals and affirms institutional priorities.***

The proposed CTE certification program supports the following goals from UMES 2022-2030 strategic plan:

**Priority Area 1: Academic Excellence and Innovation**

- **1.4** Build and maintain world-class facilities and technology infrastructure with greater emphasis given to maximizing flexibility to expand access into new markets in Maryland and worldwide
- **1.5** Pilot innovative pathways for working professionals that respond to workforce demands.
- **1.8** Develop new, revise and enhance existing academic programs to remain current with evolving workforce demands.

In regard to goal 1.4, the facilities at the Baltimore Museum of Industry are protected as a historical site. Special effort is made to make the classrooms usable and flexible for technological changes. The main computer/lecture rooms were painted and rewired after installation of new computers in 2017, making the rooms more useful for students who need access to technology. Teachers from across the state will continue to be able to join courses synchronously via webcam.

To support goals 1.5 and 1.8, the courses provided as part of the proposed certificate program will continue to be offered in modalities that will make the certificate accessible to CTE teachers across Maryland. The program will be the only approved post-baccalaureate certificate in CTE in the State of Maryland for all four PTE courses. The program will be unique in the state and is working to improve the outcomes of the program to ensure its' continued relevance and success in Maryland. Regional needs are met by the nature of the graduate PTE courses.

Additionally, newly hired CTE teachers in all 24 school systems in Maryland will continue to be the target population for the proposed certificate program. CTE teachers work in varied counties and content areas across the state, e.g.; agriculture from Washington County, nursing from Howard County, technology education from Anne Arundel County, and CISCO from Baltimore City. PTE certification is allowed by state law for hiring teachers in 38 programs of study in Maryland. Districts across the state find it difficult to fill these CTE open teaching positions so our program helps expert workers transition into teaching through a rigorous and alternative route. This helps to address the shortage of CTE teachers in our school systems, and helps to provide better prepared educators to teach career and college ready skills to students who will have a major impact on Maryland's economy.

**Priority Area 2: Access, Affordability, and Achievement**

- **2.1** Increase Enrollment.
- **2.4** Develop innovative programs that result in opportunities for new credentials.

To support goal 2.1, the program converted almost all coursework over to a hybrid or online model based on Canvas, the UMES learning management system. The courses are more accessible to a wider range of CTE teachers across Maryland. The goal is to make the online learning environment more consistent and effective through common formatting. Responses from adjuncts and students support this model. All four of the classes are offered in online format. Two of the courses are also offered in hybrid format through Google Meet, in Baltimore, and in other cohort locations.

Goal 2.1 will also be directly impacted by the development of this proposed certificate. Currently, students taking the PTE courses receive credit for the courses on their UMES transcript and the Maryland State Department of Education verifies they have met the requirements for their PTE certification requirement. Since there is no formal certificate from UMES awarded to students at the completion of the four PTE courses, students can sometimes take similar courses from other institutions and receive approval to count those courses from their certification officer in their school system. With the approval of the proposed certificate, students will have more incentive to complete the four course PTE pathway through UMES because they will receive the proposed certificate upon completion, and this will be documented on their transcript (they can also then claim the state approved certificate on their resume). Since UMES's PTE courses are tailored toward CTE instruction, these courses would be beneficial to people working in these classrooms/labs as opposed to more generic courses. Goal 2.4 is also addressed through the creation of this new opportunity for students to earn an official and documented certificate in CTE.

**Priority Area 3: Workforce and Economic Development**

- **3.1** Diversify and strengthen Maryland's knowledge workforce by expanding the pipeline of underrepresented minority students entering critical workforce fields (STEAM, cyber, health care, education, social work, human services, technology, etc.).
- **3.2** Expand the number of graduates in fields critical to Maryland's economy: STEAM, cyber, healthcare, etc.
- **3.3** Increase investments in teacher preparation to support new and flexible programs to address short- and long-term preK-12 teacher shortages.

Goals 3.1, 3.2, and 3.3 are all directly impacted by the efforts of the PTE course pathway and proposed certificate program. The teachers who complete courses in the PTE pathway represent a broad range of educators from diverse school systems such as Baltimore City to Wicomico County.

Not only will this proposed certificate help underrepresented educators enter and stay in the education workforce, but it will also help those educators prepare underrepresented students in their classes with the skills needed to enter critical STEM and CTE workforce fields. Highly qualified CTE educators are critical to expanding the number of high school graduates entering STEM and CTE fields critical to Maryland's economy. UMES as a public HBCU land-grant institution has maintained a unique focus on technical fields and service fields such as education. This plays an integral role to shaping Maryland's economy and the preparation of students to enter college or the workforce. This proposed certificate is one way for UMES and the state of Maryland to invest in teacher preparation through flexible course offerings to help address the critical shortage of CTE teachers in the state.

**Priority Area 4: Research and Community Engagement**

- **4.1** Align UMES research strength with emerging national research priorities.
- **4.3** Expand community-based research to strengthen the communities.
- **4.6** Leverage USM's institutional resources and expertise and collaboration with stakeholders to increase UMES's contributions to climate change and education.

To support goal 4.1, these PTE pathway courses have been offered since their development in 2012-2013. The courses have been edited and continuously improved to meet the needs of local school systems and students since that time. The program director participates in the quarterly CTE State Director meetings each year. This has resulted in the courses remaining current to meet the changing needs of the local school systems. To ensure that courses maintain high educational standards, all objectives in the four courses are linked to five sets of national, state and university standards: Interstate Teacher Assessment and Support Consortium (InTASC) 2013 Standards, UMES Conceptual Framework, Maryland Teacher Technology Standards, Council for the Accreditation of Educator Preparation (CAEP) Program Standards, and National Board of Professional Teaching Standards for Career and Technical Education (NBPTS) from 2014.

The program director for Career and Technology Education in Baltimore belongs to and attends the state CTE director meetings, distributes timely information to local CTE Directors, and presents at local CTE teacher professional development meetings in order to recruit new students. A pronounced effort is made to attract individuals of diverse backgrounds. In order to develop and retain the students who are admitted, intensive advising is provided every semester by the Director and two administrative assistants to keep the students on track for completion of their PTE requirements by the deadline specified by MSDE.

Through the collaborative efforts described above, the Director also establishes partnerships with the local school systems to partner on grants and other research opportunities. The Director of the CTE program at UMES has received numerous grants and been a co-investigator on a 1.2 million dollar grant from the National Science Foundation. He has published three books, over 70 journal articles, over 10 conference papers, and other scholarly works. His research and publications focus on STEM and CTE in K-12 schools and have partnered with school systems to benefit both the school systems and the University. This proposed certificate would help to build a pipeline of educators to partner with on outreach efforts required of state and federal grants. It also provides additional participants for research on career and college readiness topics that can provide valuable data for the state to make informed decisions about CTE. UMES as a research active HBCU is well positioned to pursue funding opportunities to advance research that can benefit the workforce and school systems in Maryland. This proposed certificate would help to increase the number of CTE educators who can voluntarily participate in research conducted by UMES to advance CTE and STEM education.

**Priority Area 5**: **Diversity, Equity, and Inclusion**

- **5.1** Increase the visibility of our HBCU, highlighting our mission and contributions.
- **5.2** Educate our students to be informed and engaged global citizens and change agents in our democracy.

- **5.5** Foster an environment in which all members of the community feel safe, respected, valued, and welcomed to participate in the university missions: learning, teaching, scholarship, research service and administration.

The approval of this certificate would help to market the program and university to teachers across the state. It would also help highlight the value of completing all four courses at UMES which are aligned with COMAR regulations and state and national standards. This would help UMES meet their land grant mission of serving the state and its stakeholders. The courses in the pathway are continuously updated with input from new state initiatives, school system CTE directors, students, and emerging research in the field. In doing this students are able to be better informed global citizens and change agents in our local school systems. Our courses comply with UMES's values of ensuring students feel safe, respected and welcomed to participate in learning. This is also something the courses help teachers to incorporate into their own teaching to make their students feel safe, respected, valued, and welcomed to participate in learning.

***3. Adequate funding for first five years of implementation.***

There will be no new courses added to schedule or additional adjunct instructors hired as we already offer the requisite courses currently as non-degree courses or they can be used toward the CTE Master's degree currently offered by UMES.

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

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

The University has provided support for the off-site operations in Baltimore for over two decades. For example, in 2018 UMES purchased additional WebCam systems for their classrooms in order to meet the growing long distance needs of students in hybrid and online classes. When office supplies are needed (ink cartridges, paper, stamps), they are approved for purchase. The Center for Instructional Technology and Online Learning (CITOL) office that handles Canvas has provided ongoing timely support for the Baltimore office to maximize the effectiveness of this hybrid and online course delivery system. The University also hires a full time director, two part-time administrative assistants, and numerous adjuncts to ensure students are able to be helped in a timely manner and receiving quality instruction from experienced experts on the course topics.

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

CTE teachers enrolled in the PTE Certification courses must complete the four classes within two years of being hired to convert their conditional teaching license to a standard professional certificate (SPC). We have been offering the courses in multiple semesters and formats since 2012 to meet the certification needs of Maryland CTE teachers. No change is anticipated in the course offerings.

## 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.***

Prior to 2012, new CTE teachers could earn their alternative teacher certification through the Trade and Industry certification route. On August 1, 2012, this pathway was closed and all new hires were expected to meet the Professional and Technical Education (PTE) Maryland requirements. COMAR

regulation 13A.12.02.15B(2) addresses the required four PTE topics. In Table 1, these topics are matched to the UMES non-degree graduate courses we offer as a pathway to certification for CTE teachers.

Table 1 COMAR PTE Topics and UMES Courses

| **Required Maryland Topics from COMAR** | **Graduate Level UMES Courses** | **When Offered** |
|---|---|---|
| (a) Planning, delivering, and assessing instruction | CTED 600: CTE Content, Methods, and Strategies | Fall |
| (b) Managing an effective classroom and minimizing risk | CTED 602: CTE Instructional Management and Organization | Spring |
| (c) Differentiating instruction to accommodate special needs | SPED 600: Characteristics of Exceptional Students | Spring |
| (d) Providing reading, writing, and mathematics literacy instruction relevant to the career area. | CTED 675: Reading, Writing, and Mathematics Literacy in CTE | Summer |

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

As Maryland teachers can take courses from other universities and some coursework can be met by district continuing professional development (CPD) credits, the success of the UMES program is tied to increased visibility as THE only option in MD to complete the four course PTE pathway shown in Table 2.

The courses have been highly successful in helping CTE teachers to move from a conditional teaching license to a SPC certification. The numbers of Maryland teachers who have taken our classes by year since 2018 are presented in Table 2.

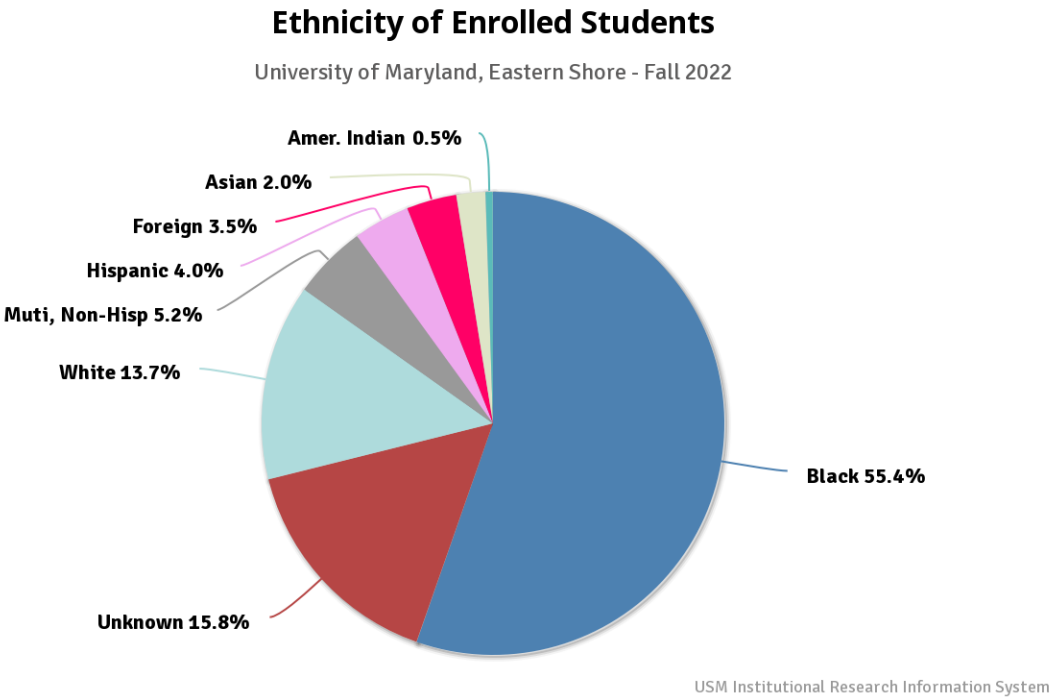
Table 2 Enrollment in PTE Pathway Courses at UMES for Academic Years 2018-2023

| Courses | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | **Total Served by class** |
|---|---|---|---|---|---|---|
| CTED 600 | 17 | 9 | 6 | 8 | 14 | 54 |
| CTED 602 | 10 | 8 | 11 | 13 | 8 | 50 |
| CTED 675 | 3 | 4 | 3 | 11 | 5 | 26 |
| SPED 600 | 8 | 7 | 2 | 3 | 11 | 31 |
| **Total Served Yr** | 38 | 28 | 22 | 35 | 38 | |

One of the reasons for the high course enrollment numbers in PTE certification is linked to the 38 programs of study in Maryland, many of which are linked to industry certifications a teacher would hold. The CTE program helps meet the present and future needs of the Baltimore region, the State of Maryland, and Blueprint for Maryland's Future. The numbers show a decline in 2020-2021 which may be the results of a few factors. COVID 19 is suspected to have impacted enrollment as teachers were given extensions by MSDE on the time frame they have to complete their PTE courses. So some teachers took time off to get through COVID, focus on their families, and also avoid burnout that occurred from the demands of teaching during COVID. The enrollment has continued to rise in the past two years. We suspect our enrollment will remain stable or rise with these factors considered. With the approval of the proposed certificate, the completion of all four courses at UMES should be more appealing to students, and also feed into the Masters in CTE program.

University of Maryland Eastern Shore primarily serves minority students. In Fall 2022, only 13.7% of students identified themselves as white (Figure 1).

Figure 1. Fall 2022 Student Enrollment at UMES by Ethnicity (USM IRIS Institution Data Dashboard)




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

The proposed program will be unique to the University of Maryland Eastern Shore and will result in increased enrollment in the PTE courses, which will in turn lead to more certified minority CTE teachers in Maryland classrooms to serve as role models for secondary students. This will be an expansion and strengthening of the capacity of UMES to provide a high-quality educational program to new Maryland CTE teachers.

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

The 2022 Maryland State Plan for Higher Education identified three goals for post-secondary institutions of higher learning to meet the needs of Maryland. The Career and Technology Education office has a structure in place that responds positively to each of these goals.

Goal 1: Student Access

The PTE coursework is directed to CTE teachers across the State of Maryland. Work that is being done to meet the Access goal is in priority #2 "Examine and improve financial literacy programs for students and families to encourage financial planning to pay for postsecondary education." The CTE office in Baltimore conducts free professional development workshops across the Baltimore region, especially in school systems with a high percentage of underrepresented teachers (Baltimore City, Prince Georges, Baltimore County). These workshops provide a means for the office to expand its' outreach to non-traditional teachers.

In addition to this strategy, the office works to identify and address financial obstacles for new teachers to take college courses. The tuition at UMES is among the lowest in the state for a university. Students enrolling in the off-campus program at the UMES Baltimore Museum of Industry location only pay a technology fee and an auxiliary, operations, and facility fee. They are not charged an athletic fee or lab fees. They do pay admission fees when applying. Maryland teachers who live out-of-state are awarded a UMES BMI In-State Tuition Scholarship. In addition, the program alerts CTE teachers to their district policies on tuition reimbursement. The results of these measures make the courses within reach of families with modest incomes.

Goal 2: Student Success

Priority 4 focusses on policies and practices that impact access and affordability for students. As a HBCU, UMES is responsive to the dynamics of cultural difference. The CTE courses include curriculum specifically designed to assist all students in learning about and responding effectively to all the secondary students they serve. All programs at UMES treat cultural diversity as a value-added resource in alignment with the UMES Department of Education values.

Priority 5 reviews structures and policies that impact student success and timely completion of programs. The program's schedule includes hybrid and online courses to meet the needs of CTE teachers across the entire state. MSDE gives CTE Teachers two years to complete their four PTE courses and the UMES PTE schedule is set so a new CTE teacher does not take a class their first semester teaching and then takes one class per semester to finish within their certification window. When our office is contacted by a teacher who waited longer to start classes, we work with the individual to develop a course and semester sequence to meet their needs, in the process helping to alleviate the shortage of CTE teachers in Maryland. These PTE courses also align with Priority 7 focused on enhancing opportunities for ongoing lifelong learning.

Most school districts offer tuition reimbursement for courses toward certification and therefore over the past 10 years, the CTE office has received very few inquiries about financial aid. When we are asked about this, we refer the students to the Office of Student Financial Aid at UMES on the main campus who provides individualized support to our students.

The teachers expected to be admitted into the new CTE certificate program already have teaching positions in school systems, therefore the CTE office in Baltimore does not provide employment information or services. What we do offer though is intensive advising to all CTE teachers to help them stay on track to completing their certification requirements to maintain employment in the school system they are currently employed.

Goal 3: Innovation

Priority 8 focuses on promoting a culture of risk-taking. The PTE courses cover topics related to helping secondary education students explore various STEM and CTE careers, including apprenticeship opportunities in alignment with Blueprint for Maryland's Future. This proposed certificate program would help to offer an accessible and unique certificate without teachers having to leave their job and relocate, meeting the workforce needs of the school systems in Maryland. This proposed certificate program would specifically provide expansion of lifelong learning opportunities to the general public who want to apply their STEM and technical skills in a public education setting to serve the needs of the state. The PTE courses help re-skill and up-skill individuals so they can share their STEM and technical expertise with the future workforce.

## 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 2023 United States Bureau of Labor Statistics Occupational Outlook Handbook reports that there are 212,100 CTE teachers across the country. CTE programs across the country are finding it difficult to hire certified teachers to fill teaching positions. The National Association of State Directors of Career Technical Education Consortium reported an 11% decline in the number of programs nationwide, primarily due to teacher shortages. A 2017 report in the Pew Charitable Trusts Stateline by Quinton states that 2/3rd of the states in the US have a teacher shortage in at least one CTE specialty program. Those numbers have increased after COVID following a large percentage of retirements and resignations from teaching positions. The 2023 United States Bureau of Labor Statistics Occupational Outlook Handbook reports there are 14,800 CTE teacher openings in the U.S. annually. School systems in Maryland continue to have unfilled CTE positions.
According to the 2022 "Maryland's Teacher Workforce: Supply, Demand, and Diversity" report published by MSDE, there were 54.5 technology education vacancies, 3 agriculture education vacancies, and 13 family and consumer sciences vacancies. All of the aforementioned fields reflect CTE areas in which students take courses at UMES for the certification.

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

Maryland school teachers move through different and ascending levels of certification in their teaching career. For CTE teachers, many begin teaching as a second career after working in industry. They have a bachelor's degree in their career field but not in education. Other CTE teachers in the areas of technology education, family and consumer sciences, business education, and agriculture education may hold a bachelor's degree in initial teacher preparation. The teachers must move from Standard Professional Certification (SPC) to Advanced Professional Certification within ten years of their hiring.

According to the *Maryland Teacher Staffing Report 2016-2018*, the following CTE fields were listed as Critical Need in staffing in the 24 school systems in Maryland. These fields are Technology Education, Family and Consumer Science, Business Education, Computer Science, and Career and Technology Education. This situation has resulted in school systems making conditional hires to fill positions. In 2014 -2015, 912 teachers were hired on conditional licenses. Many of these teachers are hired on an out-of-field BA/BS degree and need coursework to attain the Standard Professional Certification. The UMES CTE program in Baltimore provides the courses needed by CTE teachers to complete these requirements. In the specific areas of Career and Technology Education, 202 teachers were newly hired in 2017-2018 across the state (Maryland's P12 Dashboard "*2017-2018 Actual New Hires by Certification Area*"). With the requirement to attain Advanced Professional Certification within ten years, it is highly likely that these new hires every year would be potential applicants for admission to this proposed CTE certificate program.

***3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.***

The program director attends the CTE Director meetings hosted by the Maryland State Department of Education. In addition, the CTE program stays in regular contact with school system CTE Supervisors and Certification Directors about course offerings. When called on by these professionals, course information is provided to ensure that we understand the needs of the school systems in filling their CTE teacher positions and retaining the new teachers they currently have. This ongoing contact is more than adequate for the program to understand the educational and training needs of the state. Regarding anticipated vacancies by school systems, while there is variability to the yearly needs, the numbers of teachers signing up for the four PTE courses has remained relatively stable over the past five years and will see an uptick with the increased hiring of new teachers to replace the surplus of vacancies. Additionally, with Blueprint for Maryland's Future

putting an emphasis on CTE, we have already started to see more inquiries about our course offerings and should continue to see additional growth to help local school systems meet the needs of Blueprint. Maryland's P12 Dashboard "*2017-2018 Actual New Hires by Certification Area*" shows a growing trend of new CTE hires across the state from 2011 (142 new hires) through 2018 (202 new hires).

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

The number of PTE completers, as defined as teachers who have taken all four PTE courses from UMES, has remained steady since 2019. The numbers are provided in Table 3.

Table 3 PTE Completers for Academic Years 2018-2023

| Year | Number PTE Completers |
|---|---|
| 2018-19 | 9 |
| 2019-20 | 4 |
| 2020-21 | 3 |
| 2021-22 | 4 |
| 2022-23 | 6 |

The dip in completers from 2020-2022 may be a result of extensions provided by MSDE for teachers to complete their PTE coursework for certification. It may also reflect teachers taking time off to avoid burnout from COVID, teaching, and taking courses during a pandemic.

## 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.***

No other USM institutions currently offer these four PTE courses at the graduate level.

There are no college programs in PTE in Delaware but there is an alternative licensure for Skilled and Technical Sciences Teacher in the state. Wilmington University in Wilmington, DE offers a master's degree in CTE. In the District of Columbia, potential CTE teachers are required to be admitted to a Master's Degree program. The CTE Certificate program in Maryland does not require a Master's degree. Trinity College in Washington, D.C. does offer graduate courses that some school systems are approving for certification; however, Trinity College does not have degree programs in CTE.

In Pennsylvania, there are career and technical professional personnel development centers at Pennsylvania State University, Temple University in Philadelphia, and Indiana University of Pennsylvania. Candidates are evaluated on their passing NOCTI Skilled Worker Test, Committee Evaluation or Credential Review. Coursework is available at these three universities who have higher tuition for Maryland residents than the UMES in state tuition rate.

University of Phoenix offers generic education courses that can be accepted by the MSDE certification office as qualifying toward the PTE coursework. The higher tuition there and lack of direct content linked to Maryland and CTE does not help with teacher retention or better prepared teachers in CTE areas (especially involving potentially hazardous laboratory learning settings). The result of this analysis of other universities and colleges indicates that UMES is uniquely positioned to offer the PTE courses that Maryland teachers need and that school system CTE directors see value in regarding the applied courses offered and the modalities that support teachers from across the state.

The proposed certificate in CTE at UMES will be directed from the Baltimore office. BMI students who live out of state but teach in Maryland are eligible for in-state tuition scholarships. The most important factor though that precludes someone from taking courses in another state is that the UMES PTE courses are based on specific COMAR regulations in Maryland. The PTE courses are written to address the precise PTE COMAR regulations. Programs from other states are written for their own state regulations. For all of these reasons, there does not appear to be program duplication involved in the development and offering of the first CTE post-baccalaureate certificate in the state sought by UMES.

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

UMES is the only university in the entire USM system that offers the four courses in Career and Technology Education for PTE certification. This proposed certificate program will provide a documentation on a student's transcript that they completed the four course pathway, and provide assurance to Maryland school system CTE supervisors that their newly hired CTE teachers are taking courses that meet and exceed the COMAR requirements for PTE content. This program may also encourage students to continue on to pursue their master's in CTE upon completion of the certificate.

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

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

The program is high demand based on the steady enrollment numbers over the past five years. By attaching an official certificate to this program, it will increase the attractiveness to CTE teachers to complete all four PTE courses from UMES.

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

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

The mission of UMES and the Department of the Built Environment is to provide opportunities for first generation individuals teaching in CTE. We are the only HCBU in the State of Maryland to offer courses accepted by the Maryland State Department of Education to satisfy alternative certification requirements for PTE. Because of this uniqueness, UMES is consistently sought after by CTE teachers across the state for these courses.

## 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.***

Prior to 2012, new career and technical teachers could earn their alternative teacher certification through the Trade and Industry certification route. On August 1, 2012, this pathway was closed and all new hires were expected to meet the Professional and Technical Education (PTE) state requirements. The Director of the CTE graduate program at the time participated as a member of the state MSDE PTE Design Team in 2013 and used that expertise to redesign current classes (CTED 600 CTED 602) and develop two new courses (SPED 600, CTED 675) to match the COMAR regulations and the needs of new Maryland CTE teachers. The current director has updated these courses to

include content related to Blueprint for Maryland's Future and Perkins V while still maintaining alignment with COMAR.

The Director of the CTE office in Baltimore is Dr. Tyler Love. Dr. Love holds a Ph.D. in Curriculum and Instruction: Integrative STEM Education from Virginia Tech. Dr. Love is a full Professor in the Department of the Built Environment who has been published in top-tier peer reviewed publications, presents regularly at international conferences, and has won numerous awards in the field of Technology Education and CTE. He manages the PTE courses through development of the course curriculum and uploading the courses in Canvas for adjuncts, scheduling course sections, and in the supervision of adjuncts.

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

Objective of the Program

1. Provide opportunities for individuals to gain professional knowledge, skills and dispositions in teaching and training.
2. Prepare individuals to build upon the content knowledge they have acquired in their related postsecondary studies by providing additional professional knowledge and content necessary for advancing careers in teaching.
3. Develop individuals who can implement Common Core State standards, national content standards, and Science-Technology-Engineering-Mathematics (STEM) standards into curriculum, training and instruction.
4. Develop teachers who are professional, committed, reflective, continuous learners, and contributors to the enhancement of the teaching and training profession.
5. Prepare teachers and leaders who demonstrate sensitivity and effective interpersonal skills in working with culturally diverse populations.

Program Learning Outcomes

Students who complete the proposed CTE certificate program will be expected to demonstrate thorough knowledge in the philosophy, mission, vision, goals, and evolution of CTE. They will develop the following professional learning outcomes:

1. Knowledge and application of Maryland State standards-based curriculum in Career and Technology Education areas.
2. Development of laboratory administrative and leadership skills in Career and Technology Education.
3. Understanding of the learner's physical, cognitive, and emotional development and the implications for learning and instruction.
4. Knowledge of the social contexts in which education occurs, the philosophical perspectives which influence teaching and learning, and an understanding of personal beliefs related to the role of the teacher and the learner.
5. Skills and knowledge necessary to assist learners with special needs and diverse cultural backgrounds in an instructionally integrated setting.
6. Ability to organize and manage a classroom and laboratory on the basis of research, best practices, expert opinion, personal attributes, and student learning needs.
7. Development and application of a variety of teaching/learning strategies and techniques.
8. Appropriate use of a variety of approaches to assess and evaluate instructional outcomes.
9. Use of instructional technology, including computers and media, for classroom, laboratory and professional needs.
10. Development of effective skills to teach the academic literacy skills of reading, writing, mathematics, science and STEM in Career and Technology Education.

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

***a) provide for assessment of student achievement of learning outcomes in the program.***

Weekly student objectives are linked to specific session topics and course outcomes. Student assignments are submitted in Canvas (Drop Box folders) and the Discussion Forums. To ensure that the learning outcomes fit within a course, all courses are developed using a Course Curriculum Map. Table 4 is the matrix for one of the four courses: CTED 602.

Table 4 CTED 602 Curriculum Map

| Sess # | Topics | Objective(s) | Assignment | Points |
|---|---|---|---|---|
| 1 | Student Responsibilities and Ground Rules<br>• Establishing Ground Rules<br>• Determining Student Responsibilities<br>• Utilizing and Enforcing Responsibilities and Ground Rules | Describe the elements of effective CTE laboratory management. | Assignment 1: Paper describing your current laboratory and how it helps or hinders classroom management. | 20 |
| 2 | Effective CTE Classroom Management I<br>• Managing the Classroom<br>• Discipline<br>• Core Management Concepts<br>• Motivation<br>• Teaching Soft Skills | Develop a system of student responsibilities and ground rules for the management of class routines in career and technology education. | Assignment 2: Ground Rules and Student Responsibilities paper | 50 |
| 3 | Effective CTE Classroom Management II<br>• Classroom Routines<br>• Monitoring Classroom Environment<br>• Self-Discipline<br>• Rewards and Incentives | Utilize instructional technology to deliver and manage instruction. | Assignment 3: Classroom Management Strategies Research Paper | 50 |
| 4 | Diversity and Differentiated Instruction<br>• Assistive technologies | Demonstrate knowledge of the use of technologies to meet the needs of diverse students. | Assignment 4: Brief Paper Describing Lab Safety Accommodations for Students of Varying needs | 20 |
| 5 | Instructional Technologies<br>• Copyright Law | Utilize instructional technology to deliver and manage instruction. | Assignment 5: Develop PowerPoint for Open House that Utilizes Instructional Technology to Express Class Expectations | 50 |
| 6 | Student Achievement Systems in CTE<br>• Validity and Reliability<br>• Formative and Summative Assessment<br>• Grading Systems<br>• Student Records | Develop a system for documenting student achievement in career and technology education. | Assignment 6: Student Achievement System Paper | 100 |
| 7 | Program, Course and Instructor Effectiveness<br>• Administrator Evaluation<br>• Peer Assessment | Design a system to assess program and instructor effectiveness. | Assignment 7: Student Achievement System Peer Review Reflection | 25 |

| | | | | |
|---|---|---|---|---|
| | • Student Evaluations<br>• Student Learning Objectives (SLO)<br>• Self Reflection/Assessment<br>• Student Grades | | | |
| 8 | Legal Issues in CTE<br>• State Laws<br>• Federal laws<br>• Teacher Liability | Demonstrate knowledge of state and national safety laws, and issues in CTE teacher liability. | Assignment 8: Develop an Annotated Outline and Scoring Instrument of Program and Instructor Effectiveness System | 100 |
| 9 | Standards in CTE Facility Design Facilities Development or Renovation | Cite standards for career and technology education facilities. | Assignment 9: Laboratory Safety Plan | 40 |
| 10 | Laboratory Safety I<br>• Tools and Equipment Utilization<br>• Safety Tests<br>• Policies and Procedures | Develop a program for promoting safety in a career and technology education laboratory environment. | Assignment 10: Specific CTE Equipment Safety Plan | 40 |
| 11 | Laboratory Safety II<br>• Accident Prevention<br>• Reporting Accidents<br>• Maintenance | Design an efficient and safe laboratory environment.<br><br>Cite standards for career and technology education facilities. | Assignment 11: Comprehensive Lab Management Plan | 100 |
| 12 | CTE Program Advisory Boards | Articulate the role of program advisory boards in CTE programs. | Discussion Forum 1: Describe a Program Advisory Board Related to your CTE program<br>Discussion Forum 2: Respond to a classmate's response | 20<br><br>10 |
| 13 | Role of Professional Associations<br>• State and national teacher associations<br>• State and national student associations | Articulate the role of student and professional associations in the development of high quality CTE programs. | Assignment 13A: Describe a State or National Professional Organization Related to your CTE Program<br>Assignment 13B: Describe a Student Organization Related to your CTE Program | 15<br><br>15 |
| 14 | Managing Student and Lab Resources | Design an efficient and safe laboratory environment.<br><br>Implement systems for managing resources used by students. | Assignment 14: Safety and Classroom Management Dispositions Reflection Paper | 40 |
| 15 | Program Funding<br>• District and state resources<br>• Outside resources | Identify and apply for program funding resources. | Assignment 15: Simulated mini-grant proposal | 50 |
| | | | **Total** | 745 |

***b) document student achievement of learning outcomes in the program***

Student grades are carefully reviewed every semester to determine any trends. Discussions with adjuncts include information about how the new teachers are progressing and the impact of their student outcomes on improved classroom teaching strategies.

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

The program consists of twelve credit hours in four courses.

**Career and Technology Education Post-Baccalaureate Certificate**

Core Courses *All four classes will be required to earn the proposed certificate*.

| Course # | Course Title | (Credits) |
|---|---|---|
| CTED 600 | CTE Content, Methods, and Strategies | 3 |
| CTED 602 | CTE Instructional Management and Organization | 3 |
| CTED 675 | Reading, Writing, and Mathematics Literacy in CTE | 3 |
| SPED 600 | Characteristics of Exceptional Students | 3 |
| | **TOTAL CREDITS** | **12** |

CTE Course Descriptions

CTED 600: CTE Content, Methods, and Strategies

*This course examines the philosophy, mission, vision, goals, content standards, teaching methods, teaching strategies, and evolution of Career and Technology Education (CTE). Content standards in CTE, technological literacy and the Common Core will be used to identify what students should know and be able to do as a result of a CTE training experience. Participants will examine standards-based teaching/learning strategies including use of instructional technologies that are effective in enabling students to achieve the program goals. The nature of a CTE experience, with its performance-based instruction and assessment, will be explored with special attention given to the program's potential for supporting national STEM (science, technology, engineering and mathematics) initiatives and Maryland's Career Cluster model curriculum.*

CTED 602: CTE Instructional Management and Organization

*Participants in this course will develop skills and systems for organizing and managing instruction in Career and Technology Education programs. Particular attention will be given to the organization and management of facilities, students, resources and activities for safe and effective learning. Topics will include designing laboratory space, laboratory management, program and instructor effectiveness systems, adapting facilities to reflect diverse student populations, state and national safety laws, teacher liability, identifying funding resources, program advisory committees, student organizations, and the role of professional associations.*

CTED 675: Reading, Writing, and Mathematics Literacy in CTE

*This course provides an extensive understanding of the academic literacies that should be taught and modeled in Career and Technology Education classrooms. The academic literacy of reading, writing, and science, technology, engineering and mathematics (STEM) as identified in the Common Core State Standards are crucial for CTE students to develop their career and college readiness.*

SPED 600: Characteristics of Exceptional Students

*This course presents an overview of the major types of exceptionalities and their impact on the teaching/learning process. It includes the legal mandates that relate to the field of special education. Prerequisite(s): Graduate Standing.*

Description of Entrance Requirements for Proposed Certificate:

New CTE teachers are hired by school districts on a conditional teaching license. They are given two years to complete the PTE certification requirements. When the state certification department reviews their status, teachers are classified as one of four options:

- Option I: The applicant has earned a bachelor's or higher degree in a state-approved career and technical program from an Institution of Higher Education (IHE),

- Option II: The applicant has earned a bachelor's or higher degree in the career area from an IHE and they need to meet the professional education coursework (the four courses proposed in this certificate proposal, the UMES four PTE graduate classes),
- Option III: Applicant has earned a minimum of an Associate's Degree from an IHE and provide verification of two years previous satisfactory occupational experience in the career area to be taught. They may submit current recognized industry certification. All Option III applicants must take the four undergraduate PTE courses.
- Option IV: Applicant must hold at least a high school diploma and demonstrate three years of previous satisfactory occupational experience in the career area to be taught. They may submit current recognized industry certification. All Option IV applicants must take the four undergraduate PTE courses.

Applicants must fulfill the following for admission:

- All students must be working as CTE teachers in a Maryland education setting. Matriculating students must meet all requirements for regular graduate admission to UMES.
- Individuals submit a copy of their MSDE Professional and Technical Education (Grades 7-12) Evaluation for Certification to the BMI Office. This form is reviewed by the UMES CTE Office at BMI before individuals are directed to apply.
- Once directed to apply, individuals will submit a UMES graduate admission application specifying the BMI location. They also submit their Residency documentation and transcripts to the graduate Admissions Office at UMES.
- The UMES Graduate Admission office reviews official high school or college transcripts and the admission application to determine if the student is eligible.

The courses may be taken in any order so there is no set first course or cohort start date. Teachers take the courses in the modality and semester they prefer. Teachers may receive tuition reimbursement from their school districts by contract, so there doesn't appear to be a need to set up a new structure for financial aid.

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

N/A

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

CTE teachers completing the four PTE courses will generally be eligible for the Standard Professional Certification 1 (SPC) once they meet the other two state requirements: passing the Praxis II examinations and having relevant work experience.

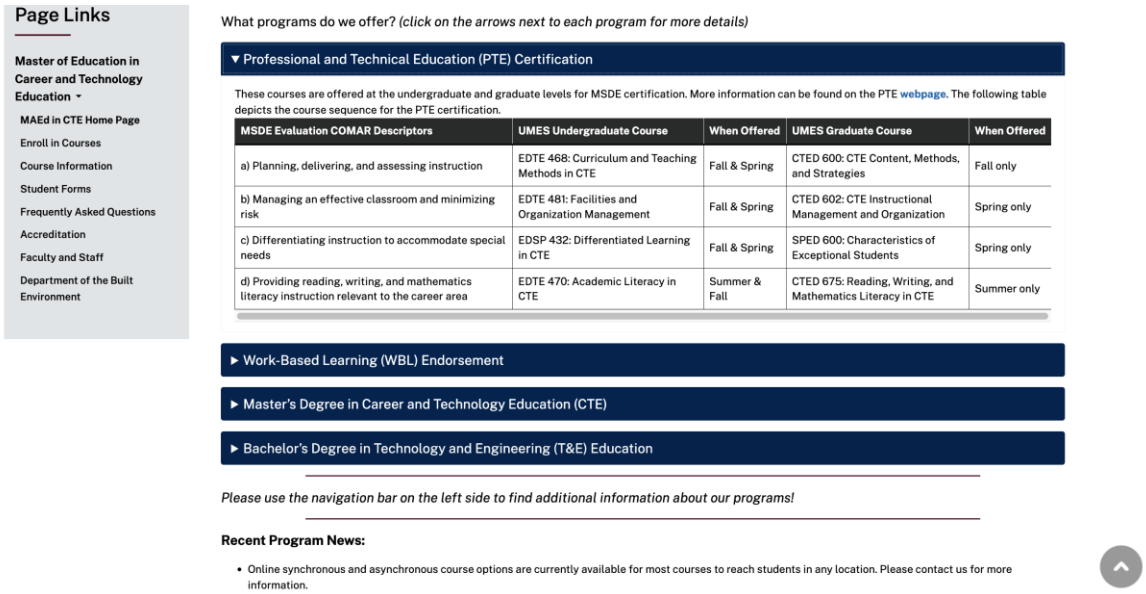
***7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.***

We are not contracting with another institution.

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

Because the program is housed at an off-campus location in Baltimore, communication to current and potential students is done primarily through Canvas, email, and the website located at https://wwwcp.umes.edu/tech/master-of-education-in-career-and-technology-education/. On this site are accurate and clear directions with screenshots to assist students with admission, registration, and payment of courses. Additional program specific forms and applicable common university forms are provided as links on this website as well. Figure 2 is a screenshot of the web site home page. There is additional support for students in the Canvas tutorial links, on UMES's website, and in the BMI Syllabus Addendum.

Figure 2 UMES PTE Pathway Website




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

As this is an ongoing pathway of PTE courses since 2012, advertising, recruiting and admission documents are primarily in the current website. There is a flyer for PTE that has been distributed to school systems and teachers from about 2013 on. Periodic newsletters are distributed to CTE Directors at meetings statewide. School system CTE directors and certification specialists are aware of the coursework and generally recommend to their new hires to contacts us for information. Once the proposed certificate program is approved, appropriate language will be added about the approved post-baccalaureate certificate program. Dr. Love will promote the new certificate during his free professional development workshops given across the state at school system teacher in-service days.

## H. Adequacy of Articulation

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

No specific articulation is in place.

## 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 this program).***

There is one full-time director, one full-time faculty member from the UMES Department of Education, and three adjunct faculty members who have been approved by the UMES Graduate School to teach graduate level PTE courses and have been teaching these courses for numerous years:

Dr. Tyler Love holds a Ph.D. in Curriculum and Instruction and graduate certifications in Higher Education Administration and Integrative STEM Education from Virginia Tech. Dr. Love is a full Professor in the Department of the Built Environment and a member of the UMES Graduate Council. He directs UMES's M.Ed. CTE program at the Baltimore Museum of Industry. Dr. Love has published 3 books, over 70 journal articles, 10 refereed conference papers, and has received numerous grants for K-12 STEM education initiatives. He presents regularly at national and international STEM education conferences and has won numerous awards in the field of Technology and Engineering Education and CTE.

Dr. Lynnette Doane-Johnson holds an Ed.D. in Educational Leadership from UMES and is an Assistant Professor in the Department of Education at UMES. Prior to that, Dr. Johnson was the supervisor of Special Education in Somerset County. Her teaching assignment in the PTE program is teaching SPED 600 Differentiated Learning in CTE.

Charles Hagan holds a MS from Towson University and Administrator I and II certificates from MSDE. Mr. Hagan has been an adjunct since Fall 2014 and teaches the CTE methods class (CTED 600 He is the Past-President of the Maryland Secondary Principals Association and was appointed by Governor Hogan to the Professional Standards and Teacher Education Board. Mr. Hagan has been a high school Principal for 13 years and recently moved to middle school. He has presented at numerous local, state and national conferences on aspects of technical education.

Melvin Gill is the Technology and Engineering Education Department Chair at Chesapeake High School in Anne Arundel County and has taught in that department since August 2005. He earned a M.Ed. in CTED from UMES in 2012 and has been an adjunct for UMES since then, predominantly teaching CTED 602, the lab management course. In 2013 he received the STEM Teacher Fellow Award in Anne Arundel County Public Schools and in 2017 received the ITEEA's Teacher Excellence Award. Mr. Gill has published peer-reviewed journal articles in both practitioner and research journals.

Alan Reese holds a Master's Equivalency with Baltimore County Schools and a Webmaster's Certificate from Harford Community College. He served as the Gifted and Talented Resource Teacher for middle schools in Baltimore County where he taught for eighteen years. During his tenure, he directed curriculum workshops for the Gifted and Talented Program. He worked as an adjunct professor for ten years for CCBC instructing courses in writing and computers. He currently serves as an adjunct for Towson University teaching courses in writing. He lectures for OLLI at Towson University and the Odyssey program at Johns Hopkins University on topics of American literature. Reese teaches CTED 675 Academic Literacy in CTE.

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

***a) Pedagogy that meets the needs of the students***
***b) The learning management system***
***c) Evidenced-based best practices for distance education, if distance education is offered.***

Adjunct training sessions and resources are provided by the UMES CTE Director to cover UMES policies, new resources and Canvas. The director develops all CTE and PTE course shells in Canvas each semester to ensure that they are formatted consistently and updates are instituted. When new

resources come to the attention of the director, he adds them to the Canvas course and notifies the instructor about the integration of those resources. For example, course assignments and rubrics have been updated to reflect upon various pillars of Blueprint for Maryland's Future and those resources have been added as a separate module in Canvas for students to quickly access.

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

***1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program. If the program is to be implemented within existing institutional resources, include a supportive statement by the President for library resources to meet the program's needs.***

The University assures that institutional library resources meet the new program needs. The Frederick Douglass Library houses over 178,500 volumes of books and 755 periodicals. Students and faculty can take advantage of the entire University of Maryland System's library holdings through Inter Library Loan system (ILLiad). Electronic databases are available through the university itself and off-campus. The UMES Library has numerous tutorials and resources posted on their webpage which are shared with students. It is expected that library resources will continue to meet all needs of the existing and proposed CTE certificate courses. New students are encouraged to apply for a UMES Library log in which provides them online access to research resources from the UMES library and access to any USM institution library in the state. The students receive their library barcode directly via email from the UMES library. In 2022, over 30 library barcodes were distributed to CTE students taking courses through UMES.

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

The institutional facilities and equipment meet the CTE program needs. The program office and classrooms are housed in the Baltimore Museum of Industry (BMI) historic administrative building on the Inner Harbor in Baltimore, Maryland. Office space includes room for the program director and an administrative assistant as well as a separate storage room for archival files and office supplies. There are three classrooms, each with an instructor computer and LCD projection system:

- Fireplace Room holds 26 students and includes whole group instruction areas and computer research stations.
- Room 113: Small computer lab with whole group instruction for research classes. Supports classes of ten students or less.
- Liberty Room: Largest room can hold 40 students in whole group lecture setting.

The BMI office has phone line and high-speed Internet which supports broadband uses like Canvas and Google Meet. The office has its' own printer/scanner/copier. There is free parking for over 100 vehicles and access to public transportation in Baltimore. The location is just off I-95, making driving access easy for students.

***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.***

All UMES students have a Google email account in MyUMES and are provided notification of institution alerts and policies. In addition, the Baltimore office maintains course enrollment information that includes student work and personal email addresses to send important class and Baltimore-specific information and notices to students.

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

All courses are accessible in Canvas and utilize Google Meet for students from across the state to attend class sessions/complete assignments.

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

***1. Complete Table 5: 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.***

Current departmental resources are more than adequate to support the continuation of PTE courses in Baltimore. No new sections or hiring of adjuncts is anticipated at this time. Most teachers receive a tuition reimbursement from their district teacher contracts that covers from 50% - 100% of the cost of tuition. Expanding the pool to more CTE teachers statewide will also increase revenue to the university.

Table 5. Resources

| RESOURCES | | | | | |
|---|---|---|---|---|---|
| Resources Categories | (2023-2024) | (2024-2025) | (2025-2026) | (2026-2027) | (2027-2028) |
| 1.Reallocated Funds[1] | 0 | 0 | 0 | 0 | 0 |
| 2. Tuition/Fee Revenue[2] (c+g below) | $94,365.00 | $95,985.00 | $97,605.00 | $105,840.00 | $112,050.00 |
| a. #F.T Students | 0 | 0 | 0 | 0 | 0 |
| b. Annual Tuition/Fee Rate | 0 | 0 | 0 | 0 | 0 |
| c. Annual Full Time Revenue (a x b) | 0 | 0 | 0 | 0 | 0 |
| d. # Part Time Students | 45 | 45 | 45 | 48 | 50 |
| e. Credit Hour Rate | $346 | $350 | $354 | $358 | $362 |
| f. Annual Credit Hours | 9 | 9 | 9 | 9 | 9 |
| g. Total Part Time Revenue (d x e x f) | $94,365.00 | $95,985.00 | $97,605.00 | $105,840.00 | $112,050.00 |

| | | | | | |
|---|---|---|---|---|---|
| 3. Grants, Contracts, & Other External Sources[3] | 0 | 0 | 0 | 0 | 0 |
| 4. Other Sources (Fees $90 per credit hr with $4 increase per year) | $27,135.00 | $28,755.00 | $30,375.00 | $34,128.00 | $37,350.00 |
| TOTAL (Add 1 - 4) | $121,500.00 | $124,740.00 | $127,980.00 | $139,968.00 | $149,400.00 |

***2. Complete Table 6: 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.***

Because the classes are ongoing now, the expenditures will not change from what is currently being incurred by UMES.

Table 6. Expenditures

| TABLE 2: EXPENDITURES | | | | | |
|---|---|---|---|---|---|
| Expenditure Categories | (2023-2024) | (2024-2025) | (2025-2026) | (2026-2027) | (2027-2028) |
| 1. Total Faculty Expenses (b + c below) | $10,000.00 | $10,400.00 | $10,800.00 | $11,200.00 | $11,600.00 |
| a. # FTE | 0 | 0 | 0 | 0 | 0 |
| b. Total Salary (Direct Adjunct Costs for 4 course offerings per year) | $10,000.00 | $10,400.00 | $10,800.00 | $11,200.00 | $11,600.00 |
| c. Total Benefits | 0 | 0 | 0 | 0 | 0 |
| 2. Total Administrative Staff Expenses (b + c below) | 0 | 0 | 0 | 0 | 0 |
| a. # FTE | 0 | 0 | 0 | 0 | 0 |
| b. Total Salary | 0 | 0 | 0 | 0 | 0 |
| c. Total Benefits | 0 | 0 | 0 | 0 | 0 |
| 3. Total Support Staff Expenses (b + c below) | $18,000.00 | $18,500.00 | $19,000.00 | $19,500.00 | $20,000.00 |
| a. # FTE | 0 | 0 | 0 | 0 | 0 |
| b. Total Salary (Half of two part-time admin assistant salaries) | $18,000.00 | $18,500.00 | $19,000.00 | $19,500.00 | $20,000.00 |

| | | | | | |
|---|---|---|---|---|---|
| c. Total Benefits | 0 | 0 | 0 | 0 | 0 |
| 4. Equipment (Half of Office supplies and technology for distance teaching) | $600.00 | $650.00 | $700.00 | $750.00 | $800.00 |
| 5. Library | 0 | 0 | 0 | 0 | 0 |
| 6. New or Renovated Space | 0 | 0 | 0 | 0 | 0 |
| 7. Half of Facility Rental in Baltimore | $14,375.00 | $14,625.00 | $14,625.00 | $14,875.00 | $14,875.00 |
| TOTAL (Add 1 - 7) | $42,975.00 | $44,175.00 | $45,125.00 | $46,325.00 | $47,275.00 |

## 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.***

*Course Evaluation*

Near the end of each semester students in all classes are encouraged to answer the online Student Survey of Instruction located in their MyUMES account. The survey has numerous questions pertaining to the course: understanding of goals and instruction, adequacy of resources, and ability to meet needs for certification. Here is the language of specific questions:

- 006. Assignments are clearly related to the content of the course.
- 008 Tests are a true evaluation of student learning.
- 022. The environment in which this class was taught was conducive to learning.
- 025. The course is challenging but fair.
- 027. The expectations of students by the instructor are appropriate for college students.

The program director works with the adjuncts to closely monitor any updating of their session instructions, resources and assignments to make sure they are in alignment with state MSDE goals, initiatives (e.g., Blueprint for Maryland's Future) and current research in the field. Class grades are reviewed to determine if the courses need further review and scrutiny. These processes, taken together, ensure that the courses are relevant to the needs of current and future Maryland CTE teachers.

*Faculty Evaluation*

For the adjunct lecturers, information is collected from the student surveys of instruction. The mean scores for the classes taught are included on the Adjunct Faculty Semester Evaluation Document. The CTE Director further evaluates the adjuncts on their ability to:

1. Effectively present the appropriate content in the course,
2. Respond in a timely manner to requests for information,
3. Meet assigned class regularly and attend meetings and training sessions, and
4. Integrate appropriate forms of technology in class instruction.

Student Learning Outcomes

Student grades are carefully reviewed every semester to determine any trends. Discussions with adjuncts include information about how the new teachers are progressing and the impact of their student outcomes on improved classroom teaching strategies.

***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.***

As these courses have been ongoing since 2012, there is five years of data indicating that CTE teachers across Maryland take the courses and pass them. Student learning outcomes can be identified within course grades in Canvas by session. Student retention is not prescriptively identified in these current non-degree seeking courses but can be in the proposed CTE certificate. Student satisfaction is identified in the Student Survey of Instructions that are logged and submitted with the adjunct faculty evaluation forms. Faculty satisfaction is collected anecdotally from conversations at the Baltimore location after class and at the end of the semester. Finally, cost effectiveness is addressed through yearly financial reports on the financial impact of the Baltimore location. The expense and income reflects both the graduate program and all non-degree coursework and has led to profits rates of 58% - 68% of income.

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

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

The proposed certificate in CTE will expand the UMES mission and institutional identity. The program does expand educational opportunities and choices for minority students by offering a unique degree program in a field where having a rich diversity of cultures in educational leadership positions is important to society as a whole. As a Historically Black College University (HBCU), these goals are embedded throughout all University of Maryland Eastern Shore's initiatives.

## 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.***

The proposed program is linked to the Master's degree program in CTE offered by the Department of the Built Environment at UMES . This program is not considered a low productivity program. There is no need for fiscal redistribution to support the program. The proposed certificate will help funnel more students into the master's degree.

## P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)

***1. Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.***

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

Canvas is utilized for all course session resources including session instructions, session resources (readings, PowerPoints, videos, worksheets), and session assignments. The courses comply with the Canvas Course Management System. Dr. Love and the adjuncts are required to remain up-to-date with their university certification in online teaching. For long distance students, WebCam and 50" televisions are in place in two classrooms where Dr. Love teaches.

All four PTE graduate courses were approved by the UMES Center for Instructional Technology and Online Learning for both hybrid and online in 2017. The courses had to meet *Guidelines and Requirements for Hybrid and Fully Online Courses* as determined at UMES by the Online Learning Policies and Procedures Committee and as indicated in the UMES E-Learning Standards. A rubric is used to score the courses.

# University of Maryland Eastern Shore

## *Post-Baccalaureate Certificate: Career and Technology Education*

| Faculty Resources | | | | |
|---|---|---|---|---|
| **Faculty Member Name** | **Appointment Type** (non-tenure track, tenure-track, or tenured) | **Terminal Degree: Title and Field** | **Academic Title/Rank Status** (full-time, part-time, adjunct) | **Courses they will teach in the program** |
| Tyler Love | Tenured | Ph.D. – Curriculum and Instruction: Integrative STEM Education | Professor (full) | CTED 600<br>CTED 602 |
| Lynnette Doane-Johnson | Tenure-Track | Ed.D. – Educational Leadership | Assistant Professor | SPED 600 |
| Charles Hagan | Non-Tenure Track | M.S. – Secondary Education | Adjunct | CTED 600 |
| Melvin Gill | Non-Tenure Track | MEd – Career and Technology Education | Adjunct | CTED 602 |
| Alan Reese | Non-Tenure Track | Master's Equivalency – Baltimore County Public Schools; B.A. – English Education | Adjunct | CTED 675 |