

UNIVERSITY OF MARYLAND EASTERN SHORE Office of the President

15 March 2022

Dr. James D. Fielder, Jr. Secretary Maryland Higher Education Commission 6 North Liberty Street, 10th Floor Baltimore, MD 21201

Dear Secretary Fielder:

The University of Maryland Eastern Shore (UMES) seeks your approval to offer its current Bachelor of Science (B.S.) program in Technology and Engineering Education (TEE) off site at the Baltimore Museum of Industry (BMI).

As discussed in the proposal, extending the BS degree program to include offerings in Baltimore helps UMES fulfill key aspects of its mission and address many of its core values by helping students master the 21st Century knowledge and skills needed to be successful TEE teachers in Maryland. Reaching out to students where they live helps promote community and student centeredness in and around their homes. It also helps UMES engage with more diverse minority communities. Overall, holding classes, including labs and internships, in the Baltimore area will increase "access to a holistic learning environment that fosters multicultural diversity, academic success, and intellectual and social growth."

The proposal to offer the B.S. at BMI also helps UMES address the state-wide need for teachers by placing a new focus on key potential pools of students, including current community college students and high school seniors taking technology and engineering classes. In addition, other smaller pools of individuals would enter the program or take selected courses to complete their General Secondary Technology Education certification.

Inclusive of both locations, students in the program will continue to complete 126 credits from 38 classes in the core technology and engineering area, professional education courses, and basic academic courses all UMES undergraduate students take. The final year will be focused on internship experience. Agreements have been reached or are being developed with 12 surrounding school districts to host interns and practicum students.

The proposal was approved by each individual and shared governance body in our internal curriculum review process. I endorse this proposal and am pleased to submit it for approval.

Thank you for considering this request.

Sincerely,

Heidi M. Anderson, PhD, FAPhA President

Copy: Dr. Nancy S. Niemi, Provost and Vice President for Academic Affairs Dr. Brian K. Bergen-Aurand, Interim Vice Provost and MSCHE Accreditation Liaison Officer

Dr. Derrek B. Dunn, Dean, School of Business and Technology



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

Institution Submitting Proposal	University of Maryland Eastern Shore					
Each action						
• New Academic Program	<i>below requires a separate proposal and cover sheet.</i> O Substantial Change to a Degree Program					
• New Area of Concentration	O Substantial Change to an Area of Concentration					
O New Degree Level Approval	 Substantial Change to a Certificate Program 					
• New Stand-Alone Certificate						
 Off Campus Program 	 Cooperative Degree Program Offer Program at Regional Higher Education Center 					
Payment OYes Payment OF Submitted: ONo Type: OC	R*STARS #PaymentDateCheck #Amount:Submitted:					
Department Proposing Program	Built Environment					
Degree Level and Degree Type	Bachelor of Science					
Title of Proposed Program	Technology and Engineering Education					
Total Number of Credits	126					
Suggested Codes	HEGIS: 839.00 CIP: 131309.0000					
Program Modality	O Distance Education (fully online)					
Program Resources	• Using Existing Resources • Requiring New Resources					
Projected Implementation Date	O Fall O Spring O Summer Year: 2022					
Provide Link to Most Recent Academic Catalog	URL:					
	Name: Dr. Brian Bergen-Aurand / Dr. Thomas R. Loveland					
Preferred Contact for this Proposal	Title: Interim Vice Provost / Coordinator BS TEE Program					
	Phone: (410) 651-6508					
	Email: bkbergenaurand@umes.edu / tloveland@umes.edu					
	Type Name: Dr. Heidi Anderson					
President/Chief Executive	Signature: Send Appelen Date: 5-12-22					
	Date of Approval/Endorsement by Governing Board:					

Revised 1/2021

Bachelor of Science (BS) in Technology and Engineering Education

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.

The BS in Technology and Engineering Education is a Maryland State Department of Educationapproved degree program that prepares candidates to become state certified technology and engineering teachers in Maryland. The Department of Built Environment at the University of Maryland Eastern Shore is seeking approval to make a change to support the degree at a second location offsite in Baltimore. The new location would be at the Baltimore Museum of Industry (BMI) in downtown Baltimore which currently houses the graduate program in Career and Technology Education.

The Technology and Engineering Education degree is a 126 credit program with an even mix of general education (42 credits), professional education (42 credits), and technology and engineering core classes (42 credits), The courses are designed to prepare future teachers in the exciting STEM-based content areas of engineering, design, manufacturing, communication technology, electronics, robotics, logistics and transportation, and the built environment. This program fits within the institutional mission of "purpose and uniqueness grounded in distinctive learning, discovery and engagement opportunities in the arts and sciences, education, technology, engineering, agriculture, business and health professions".

The recruited students will include many first generation college students into a program that "fosters multicultural diversity, academic success, and intellectual and social growth" through the coursework, development of cohorts, and renowned faculty. The program meets the increasing needs for certified technology and engineering teachers across Maryland, thereby "maintaining its commitment to meeting the workforce and economic development needs of the Eastern Shore, the state, the nation and the world."

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

The proposed modifications to the BS degree in Technology and Engineering Education support **UMES' Strategic Goal I:** "Develop, strengthen, and implement academic programs that are responsive to the UMES mission and are systematically reviewed for sustained quality, relevance and excellence to meet the challenges of a highly competitive and global workforce." The field of Technology and Engineering Education is considered a critical need nationally as the number of job openings far exceeds the number of traditional graduates in the programs nationally every year. The program is reviewed annually for quality, being up-to-date with needs, and excellence in instruction through the Professional Education Unit in the Department of Education, MSDE State Program Approval process and internal review within the Department of Built Environment. The proposed opening of a second location in Baltimore will help the program meet the larger needs for certified technology and engineering teachers, particularly from diverse populations in the greater Baltimore area.

Under Goal 1 are several subgoals that are directly addressed. The content and outcomes of technology and engineering education nationally and in Maryland are driven by the new *Standards for Technological and Engineering Literacy: The Role of Technology and Engineering in STEM Education* (STEL) (ITEEA, 2020). These eight standards and 142 benchmarks were written with direct input from leaders from the science and mathematics national professional associations. Subgoal 1.3 states that the program will "Increase student enrollment, retention and graduation rates in Science, Technology, Engineering, Agriculture and Mathematics (STEAM) fields". By increasing the admission, retention and graduation of

Maryland pre-service technology and engineering teachers in the greater Baltimore area, the UMES program will be meeting this subgoal.

By developing articulated pathways for eight community colleges to the UMES BS degree, the program is meeting Subgoal 1.4 "Increase enrollment of community college transfers, non-traditional students, international students and veterans." Two plus two pathways have been proposed for Community College of Baltimore County, Baltimore City Community College, Harford, Community College, Howard Community College, Prince George's Community College, Anne Arundel Community College, Montgomery College and Delaware Technical Community College.

Strategic Subgoal 2.3 is to 'expand partnerships with (i) business and industry, (ii) governmental agencies, (iii) community-based organizations, and (iv) other institutions of higher education. The program is working in close consultation with the International Technology and Engineering Educator Association (www.iteea.org). The BS degree program director served as the Principal Investigator on the National Science Foundation ATE grant that developed the new STEL standards from 2019 - 2020. In addition, the various MOUs under development with community colleges and the state departments of education in Maryland and Delaware with our BS Technology and Engineering Education program is reflective of this goal.

The proposed opening in Baltimore also addresses **UMES Strategic Goal #III** "Promote and sustain a campus environment that supports a high quality of life and learning that positively impacts retention through graduation and produces knowledgeable and culturally competent citizens able to lead effectively and compete globally." The career and technology education program facilities in Baltimore have been open since 2000 with administrative offices and three dedicated classroom/labs. Easily accessible from the nearby counties and free parking makes the location convenient to the potential undergraduate students in the greater Baltimore area. In addition, the location makes it easy for diverse populations in the greater area to enter into the teaching profession. The Baltimore (BMI) location has a long track record of supporting diverse population completion of master degrees and professional technical education certifications.

Under Goal 3 are two subgoals which clarify the ability of the Baltimore operation to meet this goal. Subgoal 3.1 "Improve teaching and learning environment" is being addressed by the refurbishing of the Fireplace Room through the transfer of excess MakerSpace equipment from the main campus. Over the past several years, high end webcam and display equipment has been installed in the two main classrooms and the computers onsite are continuously upgraded to support the varying programs in place. This will allow students in the immediate area and students across the state to participate in hybrid lab classes.

With the work being done on creating articulated pathways for community college students, Subgoal 3.6 "Improve support for first year, second year, and transfer students as they transition to the university" is being met. Community college academic counselors have information on matched courses for their community college students to take to enable them to complete their AA degree and transfer to UMES with 90-100% of their community college credits counting toward the BS degree. Courses not currently linked in ARTSYS are being applied for to make the course transfer process.

UMES Strategic GOAL VI states "Strengthen and sustain a campus environment that promotes, supports, and celebrates diversity, equity, and inclusion, [and develop initiatives] to foster opportunities for civic engagement." Under this goal is Subgoal 4.2 "Improve administrative structures to attract high-quality, diverse students, faculty, and staff." This is being addressed at the Baltimore offsite location through targeted recruitment efforts aimed the diverse student populations in Baltimore City, Baltimore County and Prince George's County through the current Technology and Engineering teachers. Many of

these teachers are current or former Career and Technology Education M.Ed. graduate students who maintain contact with the graduate program through direct emails, membership in the Technology and Engineering Educator Association of Maryland (TEEAM) and/or membership in ITEEA.

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.

The BS Technology and Engineering Education program will continue to be adequately funded by the university and UMES initiatives that support accreditation and reaffirmation. The facility rent is already scheduled to go up minimally and there will be no new costs associated with rent due to increased course offerings on site. The number of adjuncts in Baltimore are expected to increase over time. Core technology classes requiring adjuncts will either meet minimum enrollment for full pay or will be taught for reduced adjunct pay or covered by the program director until enrollments are at a more robust level. It is expected that student enrollment will increase based on state needs to fill the offsite courses.

4. Provide a description of the institution's a commitment to: a) ongoing administrative, financial, and technical support of the proposed program

The internal approval procedure for programmatic modification is indicative of UMES's commitment to ongoing administrative, financial, and technical support of the proposed program. The proposed modification to the BS Technology and Engineering Education program were vetted and approved by the UMES Senate (institution-wide shared governance body), the Provost and Vice President for Academic Affairs, as well as President Anderson, indicating that they have been affirmed by the institution. Technical support from UMES Information Technology has been ongoing for several decades and no change is expected in the established processes for the offsite location IT support.

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

UMES has a commitment to support the program with sufficient time for enrolled students to complete the Technology and Engineering Education program. In order to satisfactorily achieve strategic goals and maintain quality and excellence, continued support of the Technology and Engineering Education program and its students and candidates through graduation is essential to the UMES mission and goals.

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

- 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
 - a) The need for the advancement and evolution of knowledge

N/A, the other two areas have more direct bearing.

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

The proposed opening of an offsite location in Baltimore for the BS degree in Technology and Engineering Education program will meet the needs and demands for expanding opportunities and choices of minority and educationally disadvantaged students at institutions of higher education. There is currently only one student in the main campus TEE program and so a comparison to the current degree seeking graduate students taking courses in Baltimore would provide a valid view of what the future ethnicity of students will be in the program in Baltimore. There are currently 27 degree seeking graduate students in the CTED M.Ed. program and 11 of 27 are non-white or 40.7%. The data demonstrate that the program does meet the needs outlined in the State Plan.

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

UMES is the only HBCU in Maryland with a BS Technology and Engineering Education program. State Program Approval accreditation of the program supports the institution's desire to offer high quality and unique educational programs to the State of Maryland and its rural, suburban and urban minority, and educationally disadvantaged populations.

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

The Maryland State Plan for Postsecondary Education emphasizes access, success and innovation. The BS Technology and Engineering Education Program is consistent with the State Plan. The students in the program represent a spectrum of students who may not have access to opportunities to pursue an undergraduate degree without options for provisional admission. Remediation and mentoring are interventions that undergird the success of nontraditional students. Along with remediation and mentoring, 'proactive' advising is a technique that is employed from the time of initial inquiry through internship and graduation.

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.

Graduates from the program will have earned their state approved teacher certification in Technology Education 7-12 and can be hired to teach technology and engineering education in any of the 24 school districts in Maryland. Technology and engineering is a required high school (one) credit for graduation so the demand for certified teachers will not go down over the next years. Each local school system is required to offer a technology education program in grades 9-12 that will allow students to meet graduation requirements and select technology education electives (COMAR 13A.04.01.01). This state mandate to offer technology and engineering courses for every high school student requires highly qualified educators to teach these courses. UMES plays a critical role in fulfilling this need as the only institution in Maryland that prepares these certified teachers.

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the (additional location).

UMES is currently the only HBCU in the country preparing T&E educators. Recent national studies (Love, 2015a; Ernst & Williams, 2015) have identified that there is a lack of T&E educators from underrepresented populations (2-5% African American, 2% Asian). Additional research has found that fewer individuals from underrepresented populations pursue and complete degrees in STEM

fields than their white peers (Tsui, 2007). The T&E teachers prepared by UMES play a significant role in encouraging underrepresented youth to pursue careers in science, technology, engineering, and mathematics (STEM) fields. Upon graduation many of the T&E education alumni obtain employment in schools around the Baltimore and Washington D.C. region where they have a significant influence on underrepresented students' knowledge of STEM. There are an abundance of employment opportunities for T&E educators in Maryland, especially in school systems surrounding Baltimore.

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

A number of national studies by ITEEA and the U.S. Department of Education have identified T&E education as a critical shortage area. The declining number of highly qualified T&E teachers is alarming given the increasing demand for T&E in Maryland and the U.S. With UMES serving as the only T&E teacher preparation program in the state, there is a high demand for graduates from the program. As a result, more graduates would increase the influence that UMES has on STEM education in Maryland.

In a September 2020 survey of Technology and Engineering district supervisors and teachers, respondents were asked about the impact of the opening of a second location on admissions and how many job openings they will need to fill in the next three years. Eighteen of 24 district supervisors answered the survey and indicated that over the next three years, they will be hiring between 73 to 99 new Technology and Engineering teachers. In answering the question "*How helpful to your district's future hiring of TEE teachers will having the TEE program open at an offsite location in Baltimore with webcam capability for long distance students?*", 25 of the 42 responses selected the top two levels: moderate impact and high impact. The complete survey results are provided in Appendix 1.

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

Calculations used to determine the potential number of admissions to the program are based on multiple factors, each with accompanying documentation in the Appendix section. The results of that data are summarized in Table 1 below and have been used to determine the tuition and fees income estimates in Table 3. The estimates of prospective admitted students are based on a) direct email responses from community college counselors or transfer directors in the counties surrounding Baltimore (Appendix 2), b) determining the percent of students coming to the BMI campus based on the current graduate program students (Appendix 3), c) projection of this percent compared to numbers provided in #a, and d) survey results from the September survey to district technology and engineering education supervisors and teachers (Appendix 1). The calculations based on these multiple data points are indicated in Appendix 4.

While the number of email responses from the community colleges are low (3), only the seven closest community colleges to BMI were contacted about a proposed transfer pathway from an AA/AS to the BS degree program at UMES. Most of the discussion over the last six months has been related to program sequences, getting courses approved in the state's ARTSYS system, and an articulation agreement between the community colleges and UMES. The contacted community colleges are Anne Arundel, Baltimore City, Community College of Baltimore County, Harford, Howard, Montgomery College and Prince George's. The proposed pathway and agreements are moving forward with Anne Arundel and Harford. In addition, an articulation agreement was signed

in the fall of 2020 between UMES and the State of Delaware for high school credits transferring in to the BS degree program in TEE. As reported in the emails in Appendix 2 and summarized in Appendix 4, Anne Arundel projects 2 applicants per year, Harford projects one applicant per year and CCBC declined to provide a number.

Based on the breakdown of enrollment in the CTED graduate program in Baltimore, the majority of current teachers in the program are from the surrounding districts near Baltimore. We do serve teachers from across the state due to our use of webcam technologies and this is evident by the eight students (10.5%) who work in the lower eastern shore near the main campus. The greatest percent enrollments are from Baltimore County (21%), Baltimore City (18.4%), Prince George's County (10.5%), Anne Arundel (9.2%, and Harford and Montgomery each at 6.6%. Mathematically using Anne Arundel (9.2%, 2 applicants yearly) and Harford (6.6%, 1 applicant yearly), one could reasonably project other local potential admissions as Baltimore City (18.4%, 4 applicants), Baltimore County (21%, 5 applicants), Prince Georges (10.5%, 2 applicants, and etc. These projections are summarized in Appendix 4 and result in a projection of reaching 18 transfer students per year in the program. Note that with two counties near the main campus providing healthy enrollments (10.5%) in the graduate program and the potential for applicants from Delaware, it is anticipated that the BS TEE program on the main campus will remain open and viable.

The final evidence being provided is the survey from September 2020 with the 24 district supervisors of technology and engineering education. While they weren't asked to provide projected high school student enrollments in the UMES TEE program, they were asked to respond to the importance of the new location in Baltimore's impact on their hiring of the open 73 to 99 positions over the next three years. High numbers of Maryland supervisors plan to discuss the BS degree program with their current technology and engineering teachers and 44% of the TEE teachers would share information in class with the students (Question 4). As reported elsewhere, 30 out of 42 supervisors and teachers indicated that the move will increase the admission and enrollment of students in the program (Question 6).

As noted in the section on marketing and recruitment (Appendix 6), the program director has been providing free professional development workshops to local districts for the last five years and in the process has spoken in front of over 1000 Maryland teachers, administrators and supervisors during that time. Each of the five workshop topic's PPT presentations include information about the BMI operations. This free exposure to stakeholders has increased and sustained the enrollment in the graduate program and the nondegree teacher certification pathway courses. Information about the BS degree program can easily be embedded in the PPTs which will get specific recruiting information to targeted TEE classroom teachers directly.

Keeping all of these factors in mind, the program director opted for a modest calculation of students entering the program (Table 1). It is expected that most will be transfer students from community colleges which is reflected in the tuition calculations as half of what a full four year student would account for. Once the program is established and the classes fill up, there will be additional momentum for admitting and retaining students in the program.

	Transfer from CC Junior Year	Admitted Four Year	Enrolled	Expected to Graduate
2021-2022	4	3	7	1
2022-2023	9	4	13	4
2023-2024	11	5	16	9
2024-2025	16	7	23	16
2025-2026	16	8	24	20

Table 1: BS Technology and Engineering Education

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.

The University of Maryland Eastern Shore is the only university in the USM system that offers a bachelor's degree in Technology and Engineering Education. There will be no duplication of programs by offering courses at the offsite Baltimore location. There are no similar programs in the state of Maryland or in the Baltimore/Washington D.C. region. The next closest T&E programs would be Millersville University of Pennsylvania (75 miles from Baltimore) and The College of New Jersey (132 miles from Baltimore).

2. Provide justification for the proposed program.

The proposed change will allow the program to expand from the present location in Princess Anne to a second location in the heavily populated triangle of Annapolis, Baltimore, and Washington, DC. The September 2020 survey of district supervisors and teachers indicated that 75% of the respondents expected increased admissions and enrollment in the program once the second location is opened. Twenty-seven of the 42 respondents said that once the program is opened in Baltimore, they would make time in class or professional development sessions to discuss the degree availability with students and teachers. Twenty-eight of the 42 responses indicated that the development of articulated pathways with Baltimore-area community colleges would lead to increased student interest and admission into the BS degree program. The proposed addition of the BS degree in Technology and Engineering Education to the already successful graduate program in Career and Technology Education and the pathway courses for professional technical education and work-based learning endorsement at the Baltimore location will have a positive impact on enrollment and graduation rates with minimal impact on costs.

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

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

UMES is a Historically Black Institution and would benefit from having increased enrollment in the BS degree in Technology and Engineering Education. Graduates of the program would find

employment in any of the 24 Maryland districts and by their position, provide representation of the high level of standards that the University of Maryland Eastern Shore sets for itself.

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.

University of Maryland Eastern Shore has a long history of support for what was once called Mechanics Arts Education starting in 1936 and later Industrial Arts Education. Providing bachelor degrees in this education field was shared by UMES and University of Maryland College Park. The UMCP program closed in 1992, leaving UMES as the only program in the state. The UMES program changed the name to Technology Education in the late 1980s due to national changes and similarly, in the 2010s, the program name was changed to add engineering to the degree, reflecting national trends. As the only TEE degree serving state university in Maryland, the teachers across the state are strongly represented by their degree and non-degree certification work completed through UMES, thereby placing UMES in the forefront to educator stakeholders in Maryland discussing technology and engineering education. That representation by UMES includes involvement in state commissions on changing the Maryland Standards for Technology Education in 2016 and current 2020-2021 state advisory group work to MSDE.

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

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

The Technology and Engineering Education program is a long-standing undergraduate program at UMES. This proposal is just to add an offsite location in Baltimore for offering the program. The Technology and Engineering Education program has one full time faculty whose primary assignment is Technology and Engineering Education.

Dr. Thomas Loveland serves as the Coordinator of the Technology and Engineering Education Program. Dr. Loveland taught high school technology education for eight years in Pasco County, Florida; and managed and taught the BS Technology Education degree program at St. Petersburg College in Florida for nine years. He holds a Master of Arts in Industrial Technical Education and a Ph.D. in Vocational Education: Curriculum and Instruction, both from the University of South Florida. He has had numerous high profile roles in state and national professional organizations including being PI on the NSF ATE grant that developed the recent STEL standards for the field and is listed as a Co-PI on a follow-up \$600,000 Three Year NSF grant under review to implement and disseminate the STEL standards.

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

Educational Objectives

1. To allow students to build upon the content knowledge they have acquired in their baccalaureate degree coursework, adding the professional knowledge necessary for a

career in teaching.

2. To prepare teachers who are well-grounded in research, theory, and practice related to effective classroom instruction and school improvements.

3. To enable teacher Interns to develop and demonstrate sensitivity and effective interpersonal skills in working with culturally diverse populations.

4. To nurture educators who are committed, continuous learners, and contributors to the enhancement of the teaching profession.

Learning Outcomes

1. Acquire the professional knowledge base to become engaged problem solvers as well as critical, and creative thinkers and problem solvers.

2. Demonstrate proficiency in Technology and Engineering content knowledge and instruction for middle/high school students Grades 7-12.

Explain how the institution will:

- a) provide for assessment of student achievement of learning outcomes in the program.
- Assessment #1: Licensure assessment, or other content-based assessment. Met through PRAXIS II Technology Education (Test 5051)
- Assessment #2: Assessment of content knowledge in technology and engineering education. Met through Portfolio Project/Portfolio of Major Program Artifacts.
- Assessment #3: Assessment of candidate ability to plan instruction. Met through Unit Plan/ Unit Plan Project in EDCI 460 Senior Seminar and EDCI 470 Internship
- Assessment #4: Assessment of student teaching met by Internship Evaluation/Internship Evaluation by Mentor Teachers and University Supervisors in EDCI 460 and EDCI 470.
- Assessment #5: Assessment of candidate effect on student learning. Met by Action Research Project in EDCI 460 and EDCI 470.

b) document student achievement of learning outcomes in the program

Achievement of learning outcomes based on previous students

- 100% of the students received Target or Acceptable evaluations on their total portfolios.
- 100% of students were rated at target level in the foundations, characteristics of learners, language, instructional planning, assessment, ethics and professionalism, and collaboration standards.
- In the remaining standards (learning differences, instructional strategies, and learner environment) 66% (2/3) of students performed at the target level, while 33% (1/3) of the students were rated at the acceptable level.

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

Program Requirement Description

Students in the program must complete 42 credits of General Education coursework, 42 credits of Professional Education coursework, 42 credits of Technology and Engineering Education core coursework and all practicum and internship hours. The Professional Educations courses are summarized below in the degree audit format. The Technology and Engineering courses will be listed with the course descriptions. The General Education requirements will be summarized in Section 5 later.

Course Sequence- Professional Education Core 42 Credits and (Practicum / Internship Hours)

EDCI 200 Introduction to Contemporary Education (3) (10 hrs) PSYC 205 Developmental Psychology (3) PSYC 207 Educational Psychology (3) EDCI 311 Comprehensive Assessment in Education (3) (10 hrs) EDCI 406 Classroom Management (3) (15 hrs) EDCI 409 Reading in the Content Area I (3) (15 hrs) EDCI 410 Reading in the Content Area II (3) (15 hrs) EDSP 428 Communication & Collaboration: Special Needs (3) (15 hrs) EDCI 425D Curriculum Development Instructional Methods TEE (3) (160 hrs) EDCI 400 Senior Seminar (3) EDCI 460 Internship Middle School TEE (6) (320 hrs) EDCI 470D Internship High School TEE (6) (320 hrs)

Course Sequence - Technology Education Major Core 42 Credits

Technology Education BS Core I 39 credits

Instructional Planning and Development (12)

EDTE 111 Technology and Society (3) This course examines the nature of technology and society within the context of the designed world: its meaning, application, significance, the role it has played in our history and its importance in today's technological society. Course content focuses on: the characteristics and scope of technology; the nature of technology within the context of the designed world; the design and development process; core concepts of technology; relationships and connections between technology and other fields; the cultural, social, economic, and political effects of technology; the effects of technology on the environment; and the role of society in the development and use of technology.

EDTE 122 Introduction to Design for Technology and Engineering Education (3) This course emphasizes the development of a design. Students use computer software to produce, analyze and evaluate models of projects solutions. they study the design concepts of form and function, then use state-of-the-art technology to translate conceptual design into reproducible products.

EDTE 367 Instructional Design and Curriculum Development in T & E (3) This advanced curriculum design course covers how to design a standards-based unit of instruction based on instructional analysis in a content area in order to develop curriculum materials. Students learn to design, implement and evaluate technology-oriented curriculum relative to STEM disciplines. Emphasis is places on the integration and utilization of national and state content standards, not only in Technology and Engineering Education but also in the academic areas mathematics and science. Based on these standards and the backward mapping process, goals, objectives, indicators, student learning activities, instructional materials, and assessment instruments are designed.

EDTE 481 Facilities, Organization and Management (3) Basic elements of designing, creating, and managing Technology Education learning environments, both classroom and laboratory facilities, are covered relative to state instructional standards. Room layout, selection of tools, supplies, equipment, safety and layout arrangements will be studied. Modular laboratory design and management will be examined.

Production Technology (6)

EDTE 132 Technical Drawing II (3) This course covers advanced computer-assisted drawing and design software used to produce three-dimensional drawings. Engineering design and problem solving are used to research and develop renderings and animated wire-frame, surface, and solid three-dimensional models. The use of libraries of pre-drawn materials is also covered.

EDTE 242 Construction and Manufacturing Technology (3) This course is the principles of construction and manufacturing of goods, processes, and systems within context of the design, interchangeability, and product marketing are covered. students research and select products suitable of mass-production using an enterprise system. Emphasis is placed on the manufacturing design processes. The social, cultural and economic problems and benefits are also examined. This course also discusses the design process, methods, materials, tools, and equipment used in building structures. Prefabricated materials, infrastructures and renovation are additional topics covered.

Communication Technology (6)

EDTE 131 Technical Drawing I (3) The attributes of design, the engineering design process, and the basics of technical drawing are covered in this course. The design process is utilized to solve problems and design contemporary products. Basic technical drawing skills are developed, such as sketching, coordinate systems, the principles and theory of visualization, shape description, orthographic projection, basic descriptive geometry, axonometric drawings, and developments. Students use and apply computer-assisted drawing and design (CADD) software to produce basic technical drawings and three-dimensional designs. Engineering design and problem solving are used to research and develop renderings and solid three-dimensional models.

EDTE 232 Information and Communication Technology (3) This course covers information and communications systems within the context of the design world. It examines how information can be encoded, transmitted, and received. Graphic communications, television, radio, computer networks, computer graphics, the Internet, telephone, and other systems and subsystems are also examined. The symbols, design, and language of information and communications are discussed

Energy/Transportation Technology (6)

EDTE 105 Electrical Circuit Technology I This course introduces the fundamental concept of electrical circuits, including direct current (DC), voltage, power, resistance, inductance and capacitance. The application of Ohm's law, network analysis and electrical measurement are stressed.

EDTE 252 Power, Energy & Transportation Technology (3) This foundation course emphasizes Energy, Power and Transportation Technology and provides a comprehensive study of the basic elements of energy, power, and transportation and how they affect the world in which we live in. This course covers

the resources, processes, and systems used in these industries. It discusses the progression of these technologies from their first use to current use, and it also includes information on potential future technologies.

Technology Education (9)

EDTE 121 Principles of Technology & Engineering Education (3) This course covers topics in a variety of construction and engineering technology disciplines. Students will examine various careers in engineering technology and the methods and processes used in fields of civil, surveying, construction, electrical, mechanical, and other engineering technology fields. Topics include robotics, soil mechanics, project management, ethics, engineering design, Global Navigation Satellite (GNSS), and measurement equipment. Skills are applied through engineering technology challenges and hands on field activities. This course serves as the basis for the Technology and Engineering Education and Engineering Technology curriculum(s).

EDTE 410 Foundations of Technology (3) The course focuses on the development of STEM knowledge, skills and dispositions regarding the following aspects of technology: 1) its evolution, 2) systems, 3) core concepts, 4) design, and 5) utilization. It addresses the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities with the goal of students developing the characteristics of a technologically literate citizen. This course explores teaching/learning strategies that enable students to build their own understanding.

EDTE 382 Core Technologies (3) The core technologies are the building blocks of all technology systems within the context of the designed world. Mechanical and structural technologies will be examined with regard to common components, simple controls, basic system design, safety, and applications. Students will design, build, operate, and analyze a technological model, prototype or simulation related to the core technologies. An overview of materials technology will include an examination of ferrous and non-ferrous materials, common industrial forms, and the primary and secondary processing of industrial materials. Topical investigations and modular activity packages will be utilized to enhance understanding of the core technologies

Technology Education BS Core II (Pick one elective, 3 credits)

CMTE 201 Architectural Drawing (3) This is an introductory course in architectural planning and blue print reading utilized by architects and builders of residential, commercial, and light industrial properties throughout the construction industry. Students utilize CAD drafting skills and sketches to produce plans, details, and sections used in field and office operations.

CMTE 205 Computer Applications in Constructions (3) This course develops a solid understanding of micro-computers, the Windows operating system, and Internet usage. Students develop proficiency in the use of various commercially available software packages, such as word processing, presentation, spreadsheet, and database management. A variety of construction specific software programs in estimating, scheduling, and construction project management are introduced.

EDTE 216 Digital Electronics (3) This course provides an introduction to digital logics and circuits. Topics include number systems, Boolean algebra, logic circuits, digital design, multiplexers, encoders, flip-flop circuits, and digital circuit analysis.

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

Transfer students will take many of these at their respective community college. Full four year students will take these courses on the main campus of UMES.

Course Sequence - General Education 42 Credits

ENGL 001/002 English Proficiency Exam

General Education Curriculum Area 1A-D Need 6 credits.

ARTS 101 Exploration of Visual Arts (3) MUSI 100 Rudiments of Music (3)

HIST 100/H History of World Civilizations I Honors (3) HIST 201 History of American Civilization I (3) PHIL 201 Introduction to Logic (3)

FREN 101 Fundamentals of French (3) SPAN 101 Fundamentals of Spanish (3)

ENGL 204 Introduction to Fiction (3) ENGL 206 Introduction to Poetry (3) ENGL 207 Introduction to Creative Writing (3)

General Education Curriculum Area I-E 3 credits

ENGL 203 Fundamentals of Contemporary Speech (3)

Social & Behavioral Sciences Area II 6 credits

ECON 201 Principles of Economics (3) PSYC 100 Introduction to Psychology (3)

Biological and Physical Science Area III Eleven credits

PHYS 121 Physics I (3) PHYS 123 Physics I Lab (1) PHYS 122 Physics II (3) PHYS 124 Physics II Lab (4) BIOL 101 Theories and Applications of Biological Sciences (3)

Mathematics Area IV Six credits

Math 109 College Algebra (3) Math 110 Trigonometry and Analytic Geometry (3)

English Composition Area V Nine Credits ENGL 101 Basic Composition I (3) ENGL 102 Basic Composition II (3) ENGL 305 Technical Writing (3)

Emerging Issues Area VI One Credit

GNST 100 First Year Experience Semester (1)

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

The BS degree in Technology and Engineering Education is a Maryland state approved teacher education program. If new CTETE-based program accreditation standards are available from ITEEA, the program will be applying for that national accreditation.

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

Articulation agreements are expected to be developed with local Baltimore area community colleges so that specific AA degrees and courses can transfer in to the UMES BS degree program without loss of credits. There is an approved (August 2020) articulation agreement with the State of Delaware Department of Education for accepting Project Lead the Way (PLTW) credit towards Delaware students entering the program. A similar articulation agreement for PLTW is in force in the State of Maryland.

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.

With the approval of the modification to add a second offsite location, changes will be published in the Undergraduate Studies Catalog, program web home page, and program brochures. The change will be publicized directly to the 24 district supervisors of Technology and Engineering Education at the Maryland CTE Director meeting, in articles in the Inner Harbor Hawk (program newsletter for BMI), and through direct correspondence to TEE teachers who are members of TEEAM and ITEEA. In addition, information will be shared with current and former graduate students who teach technology and engineering in Maryland. Any inquiries that are forwarded to the Baltimore-based program coordinator will be followed up with program forms, course sequence information, community college information and financial aid information.

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

The program currently provides recruiting materials and communications to the Department of Technology and the School of Business and Technology regarding program specialization and descriptions and will continue to do so. All approved updates will be immediately communicated to the appropriate offices and that current documents like the published course sequence will be posted on the program website.

H. Adequacy of Articulation

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

There is currently an approved 2020-2023 articulation agreement with the Delaware Department of Education covering transfer in of high school Project Lead the Way credits for college credits. There is a statewide Maryland articulation agreement about the same course transfers to Maryland community colleges and universities. At the time of writing this report, one proposed articulation agreement with Anne Arundel Community College is being vetted within UMES. Seven other community colleges have AA to BS degree course pathways mapped out which are expected to be turned into articulated pathways. Those institutions are Harford Community College, Community College of Baltimore County, Baltimore City Community College, Howard Community College, Montgomery College, Prince Georges Community College and Delaware Technical Community College.

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

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

Name	Appt	Degree	Title	Status	Courses Taught
	Туре		Rank		
Thomas Loveland	Tenured	Ph.D., Vocational	Professor	Fulltime	EDTE 121 Principles of Technology
		Education-Curriculum			and Engineering Education
		and Instruction			EDTE 232 Information and
					Communication Technology
					EDTE 380 Core Technologies
Joel Tomlinson	Non-Ten	M.Ed. Career and	Instructor	Fulltime	EDTE 105 Electrical Circuits I
		Technology Education			EDTE 216 Digital Electronics
					EDTE 252 Power, Energy and
					Transportation Technology
Etahe Johnson	Non-Ten	MS, Industrial	Instructor	Fulltime	EDTE 111 Technology and Society
		Education and			EDTE 131 Technical Drawing I
		Technology			EDTE 132 Technical Drawing II
					CMTE 201 Architectural Drawing
Jeffrey Molavi	Tenure	Ph.D.	Professor	Fulltime	CMTE 205 Computer Applications
		Civil/Construction			in Construction
		Engineering and			
		Management			

Table 2 Program Faculty

Melvin Gill	Non-Ten	M.Ed. Career and Technology Education	Adjunct	Parttime	EDTE 481 Facilities, Organization and Management EDTE 410 Foundations of Technology EDTE 242 Construction and Manufacturing Technology EDTE 382 Core Technologies
Charles Hagan	Non-Ten	MS ED, Secondary Education	Adjunct	Parttime	EDTE 367 Instructional Design and Curriculum Development in T & E
Harry Shealey	Non-Ten	M.S., Industrial Education	Adjunct	Parttime	EDTE 122 Intro to Design for Technology and Engineering Education

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

UMES provides training in pedagogy for faculty through the following:

- Center for Instructional Technology and Online Learning (CITOL) offers regular seminars in use of a variety of technology tools and platforms to enhance teaching.
- Annual *Innovations in Teaching and Learning Conference* in June, which is free to UMES faculty and involves faculty from across the region. The conference includes strands such as Assessment, Online Learning, Diversity and the Inclusive Classroom, Teaching with Technology, and Innovative Pedagogy.
- Faculty are encouraged to apply to university funds offering stipends to attend professional development activities.

b) The learning management system

UMES uses the Blackboard Learning Management System. The Center for Instructional Technology and Online Learning (CITOL) offers seminars on the use of a variety of Blackboard features. CITOL staff are available for consultation and troubleshooting, and are very responsive to requests for assistance.

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

The Baltimore office provides adjunct training on use of the webcams in the BMI classrooms. Tutorials have been created and distributed on the best practices for using the webcam and Blackboard Collaborate.

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.

The Frederick Douglass Library functions as a viable component of the University's academic program through an organized structure which embraces Public and Technical Services. As a member of USMAI (University System of Maryland and Affiliated Institutions) consortium, the library is affiliated with the University's thirteen campuses and seventeen libraries for the purpose of sharing library resources. The integrated, comprehensive library system, ALEPH makes it possible for our patrons to have 24/7 access to USMAI library collections and electronic resources. These collections and resources include the library catalog and over 120 research databases often including full text journals, books and newspapers.

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 Baltimore Museum of Industry in downtown Baltimore has hosted the UMES offsite location for the graduate degree program since 2000. There is an administrative office, two dedicated classroom/labs for the program and an additional classroom for overflow schedules. The two dedicated classrooms (Room 113, Fireplace Room) have built in webcam capabilities, instructor stations, LCD projectors and student accessible computers.

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

Students are enrolled in the UMES Google email system upon admission.

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

The Center for Instructional Technology at UMES assists faculty and students in all aspects of e-learning including hosting, training, development, and support of the Blackboard CE 6 Learning Management System, the Blackboard Portfolio System, and Respondus. UMES' web portal is a single sign-on allowing students, faculty, and staff access to:

- HawkWeb a system where student enrollments and registrations, class rosters, and administrative functions related to academics are located.
- Blackboard the learning management system where course content can be published as well as manage the entire online course experience for students.
- Web Help Desk the Information Technology Help Desk system where you can create a ticket to request assistance for your computer, networking, and telephone needs.

The BMI campus has wireless networking access points to allow network access from a wireless enabled device like a laptop, smartphone, or tablet.

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

1. Complete **Table 3: 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.

In section C-4, a projection of the number of admitted students was produced which included two types of students: four year students attending the program on the main campus and community college transfer students attending their last two years of classes at BMI or on the main campus. The tuition calculations are based on the number of both types of students attending courses during their different course sequences with the addition of money generated from the BMI Administrative Fee.

TABLE 3: RESOURCES									
Resources Categories	Resources Categories 2022-2023 2023-2024 2024-2025 2025-2026 2026-2026								
1.Reallocated Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00				
2. Tuition/Fee Revenue (c + g below)	\$55,005	\$144,470	\$251,456	\$353,610	\$432,190				
a. Number of F/T Students	7	20	32	45	55				
b. Annual Tuition/Fee Rate	\$7,858	\$7,858	\$7,858	\$7,858	\$7,858				
c. Total F/T Revenue (a x b)	\$55,005	\$144,470	\$251,456	\$353,610	\$432,190				
d. Number of P/T Students	3	6	6	6	6				
e. Credit Hour Rate	\$228	\$238	\$248	\$258	\$268				
f. Annual Credit Hours	3	3	3	3	3				
g. Total P/T Revenue (d x e x f)	\$2,052	\$4,284	\$4,464	\$4,644	\$4,824				
3. Grants, Contracts, & Other External Sources ³	0	0	0	0	0				
4. Other Sources:	0	0	0	0	0				
TOTAL (Add 1 - 4)	\$57,057	\$148,754	\$255,920	\$358,254	\$437,014				

Assumptions:

2. Number of full-time students on main campus for 126 credits

^{1.} Reflects total enrollment for B.S. in Technology and Engineering Education program

- 3. Number of transfer students attending just their junior and senior year for 66 credits
- 4. Note that the number of students in 2025-2026 is not 45 beginning students. The number reflects two years of transfer students and four years of four year students.
- 5. Tuition: based on 2020-2021 tuition of \$224 per credit. Tuition will increase every year.
- 6. BMI Administrative Fees at \$345 per semester
- 7. No re-allocated funds, grants/contracts/external sources, or other sources of funding expected but will be applied for.
 - 2. Complete **Table 4: 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.

TABLE 4: EXPENDITURES								
Expenditure Categories	diture Categories 2022-2023 2023-2024 2024-2025 2025-2026 2026-200							
1. Faculty Expenses (b + c below) <i>Director contract</i>	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000			
a. # FTE current faculty:	0	0	0	0	0			
b. Total Salary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
c. Total Benefits	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
2. Administrative Staff Expense (b + c below)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
a. # FTE	0	0	0	0	0			
b. Total Salary	0	0	0	0	0			
c. Total Benefits	0	0	0	0	0			
3. Adjunct Instructor Expenses (b + c below)	\$17,250	\$22,500	\$22,500	\$22,500	\$22,500			
a. Number FTE	0	0	0	0	0			
b. Total Salary	\$17,250	\$22,500	\$22,500	\$22,500	\$22,500			
c. Total Benefits	0	0	0	0	0			
4. Technical Support and Equipment	\$1,000	0	0	0	0			
8. Library	0	0	0	0	0			
9. New or Renovated Space	0	0	0	0	0			

10. Other Expenses	0	0	0	0	0
TOTAL (Add 1-7)	\$78,250	\$42,500	\$42,500	\$42,500	\$42,500

Assumptions:

1. Use of adjuncts will increase over the years.

- 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.

Evaluating Courses and Faculty:

- Student Evaluation of Instruction
- Faculty Peer Evaluations
- Faculty Evaluation by Chair
- Post Tenure Review Process (every 5 years after tenure)

There are four standard procedures for evaluating faculty performance and the courses that faculty teach. Students evaluate faculty at the conclusion of each course. This is an anonymous online survey. This assessment evaluates faculty on teaching skills and dispositions. Faculty provide feedback to their colleagues via faculty peer evaluations as part of ongoing tenure and post-tenure review processes. Every year, faculty submit goals and achievements related to teaching, scholarship, and service to the department chair. At the end of the year, the Chair evaluates faculty with respect to accomplishment of their goals. Tenure and Post Tenure Reviews assess faculty accomplishments in teaching, scholarship and service.

Evaluating Student Learning Outcomes:

- Assessment #1: Licensure assessment, or other content-based assessment. Met through PRAXIS II Technology Education (Test 5051)
- Assessment #2: Assessment of content knowledge in technology and engineering education. Met through Portfolio Project/Portfolio of Major Program Artifacts.
- Assessment #3: Assessment of candidate ability to plan instruction. Met through Unit Plan/ Unit Plan Project in EDCI 460 Senior Seminar and EDCI 470 Internship
- Assessment #4: Assessment of student teaching met by Internship Evaluation/Internship Evaluation by Mentor Teachers and University Supervisors in EDCI 460 and EDCI 470.
- Assessment #5: Assessment of candidate effect on student learning. Met by Action Research Project in EDCI 460 and EDCI 470.
- 2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

The chair and dean submit annual end of year reports to the Office Institutional Research, Planning, and Assessment evaluating the effectiveness of the departments' programs in meeting strategic goals, including student retention, results from annual assessment of student learning outcomes, and cost effectiveness of department and school budgets. Exit surveys of graduating students are administered by the dean in order to assess student satisfaction.

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.

UMES Strategic Plan Subgoal 4.1: Improve structure for attracting, developing and retaining high quality and diverse students. UMES takes pride in the diversity of its faculty, staff and students with representation from 37 states and 47 countries. UMES values people of different ethnicities, orientation, cultures, and perspectives. The University of Maryland Eastern Shore has one of the most racially and ethnically diverse student population in the University System of Maryland. Based on fall 2017 data, UMES faculty were 56% African American, 27% White, 5% Asian, 1% American Indian, and 5% international. Student race and ethnicity statistics from fall 2017 reflect a student population that was 69.7% African American, 12.3% White, 8.8% two or more races, 3.6% Hispanic, 1.2% Asian, and 3.8% international.

UMES offers the most competitive tuition rates in the state of Maryland compared to other intuitions in Maryland. This improves minority student access. Our program appeals to minority students, as evidenced by the high proportion of minority student enrollment in our program (70%). We support educationally disadvantaged minority students by offering remediation and mentoring relationships. We also have a policy that allows us to offer provisional admission to students with a GPA less than 3.0 and who possess qualities or life experiences that suggest they are well suited for the counseling profession.

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.

Program is expected to have productive offsite enrollments by year 2

- **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.

UMES is not seeking approval at this time offer the program via 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.

N/A