



UNIVERSITY of MARYLAND
EASTERN SHORE

Capital Testimony

to the Maryland General Assembly

Maryland House Appropriations Committee

Capital Budget Subcommittee

Tuesday, March 19, 2013

and

Maryland Senate Budget and Taxation Committee

Capital Budget Subcommittee

Tuesday, March 26, 2013

Presented by:
Juliette B. Bell, Ph.D.
President





*Dr. Juliette B. Bell
President*

Mr. Chairman, members of the Subcommittee, I am Juliette B. Bell, president of the University of Maryland Eastern Shore (UMES). I bring you greetings from our students, faculty, staff, and the entire university community. I am grateful for the opportunity to testify before you on the Governor's FY 2014 capital budget request for the University of Maryland Eastern Shore (UMES).

On behalf of the students, staff, and faculty of UMES, I would like to thank Governor O'Malley and the Maryland General Assembly for the support that has been given to the University System of Maryland (USM) in general and the University of Maryland Eastern Shore in particular, and for your support of our capital improvement plan.

In this legislative session, I have testified about the progress UMES is making in its strategic goals and programs. Our enrollment in fall 2012 held relatively steady at 4,454 students despite the economic challenges that face our citizens, the State, and the Nation.



Just minutes away from NASA's Wallops Island Flight Facility, UMES is the only university in the University System of Maryland with an Aviation Science major.

UMES is making significant contributions towards the Governor's goal of increasing the percentage of adult Marylanders with college degrees planned to reach 55% by 2025.

The number of degrees awarded at UMES increased by more than 50% in the last 5 years reaching a record high of 758 in 2012. Also in 2012, UMES experienced a 42% growth in science, technology, engineering, and mathematics (STEM) graduates. This profound growth in STEM graduates supports the State's workforce development initiatives. Our commitment to prepare the future workforce in the State of Maryland has reinforced our resolve to strengthen the unique disciplines that we offer especially in Aviation Science & Engineering, Mathematics & Computer Science, Marine-Estuarine-Environmental Sciences, Doctor of Pharmacy, Doctor of

Physical Therapy, and Physician Assistant programs. Equally important are the 16 programs in teacher education, Construction Management, Hotel and Restaurant Management, Food Science, PGA Golf Management, Criminal Justice, and other programs that meet the needs of our State.

In order to sustain the growth and diverse STEM graduates required for the state's workforce and innovation needs, UMES will be offering new degrees in Biochemistry (BS), Chemistry (MS), and Physician Assistant Studies (MMS).

UMES has over 26 peer accredited programs, and in our efforts to continue to strengthen and promote excellence in our academic programs, UMES, in 2012, received the Association to Advance Collegiate Schools of Business (AACSB) International accreditation. With this accreditation, UMES joined the elite 5% of schools so accredited out of 648 schools of business worldwide. UMES programs in Physical Therapy and Teacher Education continue to enjoy 100% pass rates. Recently, UMES was reaccredited with commendations by the Middle States Commission on Higher Education – a status that reaffirms the high quality education that is provided at UMES.

UMES faculty, staff and students continue to spur innovation on Maryland's Eastern Shore through research, entrepreneurship, and technology transfer. It has been noted that between 2011 and 2012, UMES received over \$19 million in awards in grants and contracts, the second highest total amount among all comprehensive institutions in the USM, and the highest average grant award per Full-Time Equivalent Faculty (FTEF) among the USM comprehensive institutions and among its peers.



FY2014 CAPITAL IMPROVEMENT PLAN

It is important that I share with you the UMES FY 2014 Five-year Capital Improvement Plan priorities.

Our top priority is the continuation of funding for the new Engineering and Aviation Science Building.

We are grateful to you and the Governor for the initial project planning funds of \$3 million

funded in FY 2011 and the \$3.6 million in FY 2012. We are asking for your continued support of the Department of Budget and Management (DBM) recommendation of \$22,695,000 in construction funds in FY 2014 and for future requests planned for FY 2015 and FY 2016. This project addresses issues of poor quality space, functionally inadequate space, a lack of specialized class lab spaces, and insufficient office spaces in Tanner Hall, modular trailer units, and Kiah Hall where these programs are currently housed. The new class lab spaces support the engineering program with four specializations – electrical engineering, computer engineering, mechanical engineering, and aerospace engineering.

The UMES Aviation Science program is the only such program in the University System of Maryland, offering four (4) degree concentrations: Professional Pilot; Aviation Management; Aviation Software; and Aviation Electronics. Currently, there are approximately 55 students actively enrolled, and 80 aviation science advisees. The program has two (2) full-time faculty lecturers (non-tenure track) and five (5) part-time adjunct faculty.

The Aviation Science program has an ongoing collaboration with NASA Wallops and the United States Department of Agriculture in remote sensing operations and other multi-disciplinary research. Students regularly participate in the research, receiving stipends for their participation.

The Engineering and Aviation Science Building project will construct an 88,610 net assignable square feet (NASF)/163,350 gross square feet (GSF) facility that will provide appropriate instructional space for the Engineering and Aviation Science program, the Department of Mathematics and Computer Science, and the Telecommunications program.

2012-2013 Facts and Figures

**Founded
1886**

**Enrollment
4,454**

**Full-Time Faculty
217**

**Bachelor's Degrees
34**

**Master's Degrees
13**

**Doctoral Degrees
7**

**Sponsored Research and Grants
\$19.4M**

**Endowment
\$21.5M**

**In-State Tuition
\$6,713**

**Out-of-State Tuition
\$14,849**

**Operating Budget
\$130.2 M**

**Diversity
69%
African American**

**31%
Non-African-American**



Interior rendering of the new engineering and aviation science building

As a result of securing the Dwight D. Eisenhower Transportation Research Fellowship six (6) years ago, approximately \$30,000.00 annually of research fellowship grant money is awarded to UMES students researching transportation related issues.

The Aviation Program is finalizing a memorandum of understanding with the FAA Office of Civil Rights for their Mentorship Program. The mentorship program will be available to all majors in the School of Business & Technology.

Last semester, the program added three (3) more flight schools to the existing two (2) contracts to offer students a greater choice and flight schools with which they could train. The Aviation Program has two fully online courses and is developing two additional online courses, and has a 2+2 agreement with the Community College of Baltimore County (CCBC). Three recent Aviation

Science graduates have been accepted to graduate school at Embry-Riddle Aeronautical University. The Engineering and Aviation Science Building provides the needed facilities, and enhances and sustains accreditation requirements, enriching the success of this and other programs housed in the building.



Five-Year Capital Project Plan



*The Frederick
Douglass Library*

With the support of my cabinet, I am in the process of reprioritizing the UMES Five-year Capital Improvement Plan, making the construction of a new, state-of-the-art library our number two priority project following the Engineering and Aviation Science building project. The new library will be approximately 100,500 gross square feet in size. The university is making this request to provide a modern and resourceful library that will support our university mission and our focus on STEM. UMES' growing academics programs have outpaced the Frederick Douglass Library (FDL), which as a result, experiences an increased demand for reader space,

shelving, technology, infrastructure and staff areas. The library, constructed for services appropriate to a period twenty or more years ago, has become antiquated and inadequately meets the requirements of a 21st century academic library service.

There are academic, environmental, and health issues that preclude renovation, making the erection of a new structure requisite in order to support 21st century library programs, services and collections. Among the most pressing concerns are:



Kiah Hall

- 1) Space issues, as we currently do not have enough seats, study rooms to accommodate the current student body, much less a growing population. With changes in curriculum leading to more group study and the growth of the use of laptops and other technologies, many of our spaces, designed for solo work with print resources, are inadequate.
- 2) Compliance with access requirements because the library lacks both glass panels and an automatic door opener. The handicapped ramp leading to the entrance appears to exceed the recommended 5% grade. The switchbacks and several entrances to the library are too narrow for effective wheelchair access. Once inside the building, there are no controls to open the doors.

Due to the slowed capital project funding process of the past few years, UMES has a number of building renovation projects that have been deferred. These buildings require renovations and upgrades in space functionality, efficiency, appropriateness and technology. We will be requesting funding for renovations and additions to the Kiah Hall building. Kiah Hall is the home of the university's AACSB-accredited School of Business and Technology, and will require necessary facility upgrades in order to maintain accreditation. In addition, renovations and additions are needed to the Carver Hall Science building and a new Pharmacy building needs to be constructed. We have elected to defer the construction of the replacement buildings for the Early Childhood Center and the Farm Support Buildings to later years to help accelerate the current capital project priorities.

Climate Change Initiatives

UMES, a signatory to the American College and University Presidents Climate Commitment (ACUPCC), completed its campus-wide Climate Action Plan (CAP) in 2011 and its second Greenhouse Gas (GHG) Inventory in 2012. The original GHG inventory was conducted using July 2007 to July 2008 data. For the period of FY 2008 (July 2007 to June 2008) the University's GHG emissions was 30,053.2 metric tons of carbon dioxide equivalent (MT-CO₂e). For the period of FY 2012 (July 2011 to June 2012) the University's GHG emissions was 27,598.5 MT-CO₂e. The decrease from FY 2008 to FY 2012 was 2,454.7 MT-CO₂e and is an 8% decrease. Retired purchased renewable energy credits (RECs) will account for an additional 1,164 MT-CO₂e reduction in GHG emissions, bringing UMES' overall reduction to 12% in 2012. This UMES reduction level was realized three years ahead of the 2015 target of 12%, and UMES aims for a 25% reduction in GHG emission by 2020, and 100% GHG reduction by 2050.

Climate Change Initiatives are part of the UMES Campus Master Plan program approved by the University System of Maryland (USM) Board of Regents. UMES set goals, in the 2011-2016 UMES Strategic Plan, to sustain the reduction of the campus carbon footprint with strategies that include: (1) engagement of faculty, staff and students in the enhancement and implementation of the Climate Action Plan (CAP); (2) promotion of existing alternative transportation solutions to stakeholders; (3) development and implementation of waste reduction targets and programs; (4) creation of a smoke free campus; (5) the conduct of climate-specific research programs on carbon capture and sequestration, and gas mitigation strategies; and (6) the conduct of research on the indirect impact of ammonia reductions in poultry houses and use of growth regulators on grass to reduce energy use for maintenance.

The UMES – SunEdison Solar Production facility (solar farm) was completed and commissioned on March 28, 2011. This 2.2 megawatt photo-voltaic facility, located on a 17-acre farm on our campus is already producing green energy that is consumed by UMES. It is estimated that it will produce 3,000 megawatt hours annually and will account for about 10% of UMES' annual electricity usage. To date, this facility has produced more than 7,000 megawatt hours of electricity. UMES is actively discussing with the USM more opportunities to participate in Public Private Partnership (PPP) projects in green energy generation that will include more solar and wind sources.



UMES has strengthened the role of the Student's Sustainability Engagement Committee. With administrative support, the students in 2012 conducted a campus-wide climate change survey and also conducted the UMES Green Campus awareness campaign rally in spring 2012 that included a green fashion show. This program was well received on campus and in the Delmarva area. Sustainability education and awareness is being intertwined with campus living and operation.

The UMES recycling program has improved from a 5% recycling rate of total solid waste generated in 2010 to 13.5% in 2011 with innovative recycling programs planned in the future. UMES has an on-campus and on the Town of Princess Anne transportation program for students, thus reducing greenhouse gas emissions associated with student travels.

UMES has active research programs that focus on: (1) Center for the Integrated Study of Coastal Ecosystem Processes and Dynamics in the Mid-Atlantic Region, and (2) Carbon Capture Research. UMES established the Center for the Integrated Study of Coastal Ecosystem Processes and Dynamics in the Mid-Atlantic Region in fall 2010 funded by the National Science Foundation's CREST (Center for Research Excellence in Science and Technology) program for \$5 million over a five-year period. As a component of the UMES Climate Change project, the Center recruits, mentors and educates undergraduate and graduate students, particularly members of the underrepresented minorities while conducting research on impacts of climate change on biodiversity in the Mid-Atlantic Region.

UMES secured \$245,000 in external funds in January 2011 from the U.S. Department of Education to establish a laboratory of carbon management in which the carbon capture research will be conducted. The goal of the UMES carbon capture research is to develop a novel method for capturing carbon. Carbon sequestration is generally considered the most effective means of reducing emissions of the greenhouse gas, CO₂ from large point sources, and the first step to sequestration is the capture of CO₂. Faculty and students are currently conducting research on algae-based carbon capture. Sustainability education and curriculum enhancements are already taking place in the Construction Management program, and such improvements are widely considered in the School of Business and Technology.

UMES continues to build, renovate and operate facilities that are sustainable and energy efficient. In 2011, Somerset Hall, a 64-year-old building renovated in August 2010 that houses the Doctor of Pharmacy program, received the Leadership in Energy and Environmental Design (LEED) Gold rating from the U.S. Green Building Council. The planned Engineering & Aviation Science building is designed to be LEED Gold certified when completed. Wicomico Hall, a residential dormitory renovated in August 2010, utilized a geothermal energy system in heating and cooling of the building. This innovative energy efficient system is being replicated in new capital projects. UMES has successful energy conservation programs with a focus on efficient building and lighting systems leading to the replacement of older heating, ventilation, and air condition (HVAC) systems and equipment, replacement of metal halide light fixtures with LED fixtures, thus reducing energy consumption in facilities and the institution's carbon footprint. The use of hybrid/flex fueled vehicles, procurement of energy star products, and the use of environmentally friendly housekeeping products are part of the UMES campus e-operation.

UMES is committed to delivering the very best education to the citizens of Maryland. We are committed to the ideals of the USM and our 1890 Land Grant mission. On behalf of the students, faculty, staff and the entire University Community, I urge you to support our projects and the Governor's budget.



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