UNIVERSITY of MARYLAND EASTERN SHORE

Fall 2016

FROM THE HAWK'S NEST

Official Newsletter of the UMES Technology & Engineering Education Program

EbD and PLTW Articulation for High School Students

UMES has an articulation agreement with the Maryland State Department of Education. Students who complete the EbD or PLTW pathways can earn college credit. Please contact Dr. Tyler Love for more details.

Professional Development: The Raspberry Pi, Coding, and Engineering Design

UMES is looking to offer hands-on workshops demonstrating the use of coding and the Raspberry Pi as tools to solve engineering design challenges. Please contact Dr. Tyler Love if interested in participating.

Faculty Publish Articles in ITEEA Journal

- Dr. Tyler Love, Mr. Joel Tomlinson, and Dr. Derrek Dunn published an article in October about utilizing the Raspberry Pi and Orange Pi to solve engineering design challenges.
- Mr. Chris Hartman and Mr. Geoff Bland published an article in October regarding safer guidelines and practices for using drones in schools.
- Drs. Tyler Love and Ken Roy published an article in September about the health risks associated with 3D printing.

ITEEA Offering FREE Poster for Teachers

Features the names of all colleges where students can earn their T&E education degree. Please download from here, print, and hang in your school. Also includes an article discussing recruitment strategies.

Computer Science in Maryland's Technology Education Standards: What Does the Research Say?

Findings available online at:
https://www.umes.edu/Tech/teCSEngDesign.html

- What are the major differences between the new Framework for K-12 Computer Science Practices and the Standards for Technological Literacy?
- Do other states count Computer Science for Technology Education credit? Where are Computer Science courses best situated?
- What criteria must Technology Education and Computer Science courses meet to comply with the Code of Maryland (COMAR)? Do the preapproved Computer Science-Based courses satisfy all requirements in COMAR?
- What are some research supported curricula that use programming as a tool to solve hands-on engineering design challenges while addressing all nine core technologies and the designed world as stated in COMAR?

Follow our latest news on Facebook and Twitter!

Spring 2017 Engineering Competitions*

*Crab Boat Engineering Challenge: High School**

This FREE event will be held in April at UMCES again after receiving coverage from various media sources last year. Rules and additional information are available here.

*TSA TEAMS: Middle School**

This national event will be hosted on March 11, 2017 at the UMES Henson Center Ballroom. Additional information is available here.

If interested please contact Dr. Love ASAP.

Featured Student

Ahmari Carrigan

Ms. Carrigan transferred into T&E Education this semester from the Aerospace Engineering program at UMES. She is from Montgomery County, Maryland and brings a wealth of engineering knowledge to the program. We are excited to have Ahmari join us!

Students and Faculty Present at 2016 TEEAM/MAST & UMES Conferences

FREE Resources for teachers available online!

On October 21, 2016 a number of UMES faculty and students presented at the annual joint conference hosted by the Technology and Engineering Educators Association of Maryland (TEEAM) and the Maryland Association of Science Teachers (MAST). Mr. Joel Tomlinson, Ms. Etahe Johnson (faculty), and Mr. Cole Chesser (student) presented to a standing room only about the basics of Raspberry Pi programming and provided a demonstration of how it could be used to solve an engineering design challenge. Dr. Tyler Love (faculty) and Mr. Jonathan Moore (student) presented to a packed room about the drone design challenge that T&E education students completed last semester. Both presentations emphasized the integration of STEM concepts. FREE lesson plans and other resources from the presentations can be found on the T&E Teacher Resources webpage!

Additionally, on October 20, 2016 Dr. Love, Mr. Moore, and Mr. Cory Brown (student) presented about the T&E education program's experience with the drone design challenge at the Mid-Atlantic Higher Education Business and Research Conference in UMES's new Engineering and Aviation Sciences Complex.