



The Basic Facts

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The Basic Facts, College of Basic and Applied Sciences, Middle Tennessee State University, Murfreesboro, TN

The Science of Success

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ROTC Ranger Challenge Team

On October 19, 2010 MTSU Army ROTC sent its ranger challenge team to compete in the 7th ROTC Brigade Bold Warrior Challenge competition. The nine man team led by CDT Trent Wiggins, a senior in the ROTC program, finished 9th out of 42 teams and took 1st place in the first aid and land navigation events.



The Bold Warrior Challenge is a two day event that tests the physical and mental strength as well as the endurance of cadets. The competition also included a strict evaluation of cadets' land navigation, marksmanship, weapons, waterborne operations, hand grenades, and basic patrolling skills and knowledge.

MS Veterans Salute

Our wonderful Army ROTC Cadre works hard to honor area veterans with a "Salute" at a fall home football game each year. They provide free food and football tickets for veterans and veterans from all branches of service are honored at half time of the game. In the morning, Dr. and Mrs. McPhee host a brunch for general officers and their spouses. MTSU has graduated more than 14 general officers in its 60 year history of offering Army ROTC.

Celebrity Spelling Bee

A participant in the Murfreesboro Celebrity Spelling Bee was



"Albert Einstein." Preston MacDougall suggested that the college sponsor Dr. Einstein. The Chairs and Deans contributed a total of \$180 toward the "Read to Succeed" program. Dr. Einstein did not win, but his humor was enjoyed by all.

Construction Started on New MTSU ABAS Dairy Laboratory

Groundbreaking on the new \$4.4 million dairy project was Monday, November 15. It is anticipated that cows will be transported to the new facility by April 2011.



This is going to be a state-of-the-art dairy with an 8x8 parallel milking parlor. MTSU is the only school in the south where students milk the cows and process the milk for students to drink in the campus dining areas. The real purpose is to prepare our students for employment in the growing fields of food processing and food safety. An estimated 75 to 100 people attended the groundbreaking event.

National Conference on General Aviation

Ron Ferrara and Wayne Dornan and colleagues from Corporate Flight Management (CFM) organized a national conference on general aviation in China. The U.S. has around 600,000 small aircraft and China has about 1,000. Most Chinese airspace is controlled by the military, and they know changes need to occur. A delegation of high powered Chinese officials led by Dr. Sun Qiang, Vice Dean of Beijing University Law School, came to dialog with MTSU, FAA, FedEx, CFM, and others about changes they will consider making in policies related to general aviation in China. It was a very successful conference. Special thanks to CFM and FedEx.

ACM International Collegiate Programming Contest

MTSU's Blue Raider #1 team solved seven out of nine problems within five hours and won the 1st place in ACM mid-central region programming contest on November 6. A team from TTU solved six problems and was in 2nd place. There were total 22 teams competing at the TTU site, including two teams from UT-Knoxville, four from TTU, and three from Vanderbilt. Winning team members are Matt Bradley, Michael Chasteen, and Nathan Reale. The team ranked 8th place out of 142 teams in the entire mid-central region (Missouri, Arkansas, Illinois, Kentucky, and Tennessee). Only three teams in the whole region solved more than seven problems.

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The Basic Facts

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The Basic B.E.S.T. (Boastful Educators Sharing Talents)

All departments are invited to submit items for this column

Agribusiness / Agriscience

The Fourth annual Raiderfest was the best yet. The event, hosted by the MTSU School of Agribusiness and Agriscience (ABAS) and organized by the ABAS Student Council, welcomed 135 high school agriculture students from across the state.



Raiderfest gave future agriculture students the opportunity to attend agriculture seminars, visit the MTSU Campus and tour some of the farm laboratories. It also gave them the opportunity to meet and greet MTSU ABAS faculty and various student clubs and organizations.

For the second year, TSC was the major sponsor, buying \$1,200 worth of tickets for students who attended the event. TSC also provided gift bags and really "neat" ag magnet stick-ups.

Most of all, the students who joined in Raiderfest had fun.

Biology

In October 2010, Jeffrey Walk and Siti Hidayti were invited by the Government of South Korea to give seminars at the Korean National Arboretum. In addition, they participated in discussions to set up a collaborative research project to establish an Asian-wide ex situ seed bank facility for plant



conservation. Pictured are Jeff and Siti, with their son Edwin and South Korean colleagues, Jae-hyeun Kim, Ji Suk Lee, and Ki Cheol Lee.

Chemistry

Judith Iriarte-Gross represented the MTSU chapter of Sigma Xi at the Scientific Research Society at the 2010 national meeting in Raleigh N. C. She was the invited speaker for the Chattanooga Section of the American Chemical Society on November 18. Miguel Hurtado, a chemistry major at MTSU, won the Ciba Travel Award to present his research findings at the 2011 Green Chemistry & Engineering Conference in Washington, DC. He is one of the four students and the only undergraduate student chosen for the awards in the nationwide competition organized by the American Chemical Society (ACS). Mr. Hurtado has been mentored by Beng Guat Ooi.



Computer Science

Brenda Parker presented "Using Alice to Promote Interest in Computer Science" at the mid-Southeast ACM Conference in Gatlinburg, TN.

Cen Li presented "From LEGO Robotics Summer Camp Projects to CS1 KAREL Assignments" at the mid-Southeast ACM Conference.

Michael Chasteen, Master student, presented "Developing Peer-Space Online Collaborative

Learning Environment for CS1 and CS2 Students," at the mid-Southeast ACM conference. Michael Chasteen's presentation won 2nd place in the Master Student Research Competition at the conference. Cen Li, Zhijiang Dong, and Roland Untch are Mr. Chasteen's co-advisors on this project.

Mathematical Sciences

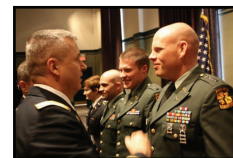
Zachariah Sinkala presented a talk titled "Computing the Stochastic Dynamics of Multiscale Model of MAPK Signaling Cascade" at the MEEG 2010 International Conference on Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases held in Amsterdam, Netherlands. He also chaired a symposium titled "General Mechanisms of Evolution."

Xiaoya Zha, Jan Zijlstra, and Michael Chappell made presentations at Mitchell Neilson Elementary School for the PRISM AfterSchool program. PRISM AfterSchool is an extension of the summer Camp PRISM program, a collaboration between MTSU College of Basic and Applied Sciences and Murfreesboro City Schools and is directed by Diana Cheng and Rebecca Calahan.

Military Science

On November 23 the MTSU Blue Raider Battalion conducted the Military Science Department's annual fall awards ceremony at the JUB. The purpose of the fall awards ceremony is to recognize outstanding ROTC

cadets for their accomplishments in academics, physical fitness and military science. Notable awardees include: Cadet Jonita



Larry for highest battalion academic GPA and Cadet Courtney Fultz for best performance on the Army Physical Fitness Test. Cadets Trent Wiggins, Omar Washington, Andrew Stokes, Jonathan Henry, and Jonathan Snider were all honored for excellent performance at the Army's Leadership Development and Assessment course.

CBAS

The Molecular Biosciences PhD program hosted a Nanotechnology Seminar presentation by Dr. Ali Khademhosseini to discuss microengineered hydrogels for stem cell bioengineering and tissue regeneration. Dr. Khademhosseini, an Assistant Professor at Harvard-MIT's Division of Health Sciences and Technology, outlined his work in controlling the cell-microenvironment interactions by using patterned hydrogels to direct the differentiation of stem cells.



Fourteen CBAS faculty and nineteen students made twenty-two presentations at the Annual Tennessee Academy of Science meeting in Cookeville, TN, November 18-19. Thanks to all who represented MTSU.