



# The Basic Facts

Volume 12, Issue 4, April 2011

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

## Goldwater Scholars Selected

Never before in the history of MTSU have we had two students win Goldwater Scholarships, until this year. Evan Craig, a biology major, and Chris Ehemann, a physics/mathematics double major, received Goldwater Scholarships.

They were two of 275 awardees from a pool of 1,100 applicants. Lauren Rigsby, a biology/physics double major, received honorable mention. We are very proud of all three students and very appreciative of the help provided by Laura Clippard and Dean John Vile from the Honors College.

## CBAS Awards Program

On April 7, CBAS recognized and honored outstanding students across the college.

Mary Crouse (BIOL) received the President's



Award, the highest student award at MTSU. The award was presented by President McPhee. Three students were recognized for their success in the national Goldwater Scholarships competition (see "Goldwater Scholars Selected" article). Provost Bartel presented 58 senior honor awards ( $GPA \geq 3.75$ ). Each department except ET presented awards to their best and brightest. Four departments host their own awards ceremonies: AERO, ABAS, ET, and MS.

## CBAS Scholars Day Event

The College of Basic and Applied Sciences hosted a Scholars Day Showcase on Tuesday of Scholars Week. CBAS departments gathered at the KUC Knoll to present information and host activities to show what the College has to offer. Students also enjoyed door prizes, food, and music. The Scholars Day Showcase was a huge success, drawing the highest number of attendees since its inception. On Friday of Scholars Week, CBAS students presented their research projects

in the University-wide Poster Session. Winners of the CBAS Poster Session were: (Undergraduates) - William Fultz, Sawyer Shoates, Michael Borella, Jessica Taylor, Daniel Gouger, Jacob Basham, and Jeanne Stubblefield; (Graduates) - Michael Anderson, Eric Salmon, Benjamin King, and Jerrod Shipman. Special thanks to the Scholars Day Committee, the department chairs, and representatives for helping to make Scholars Day 2011 the best ever.



## MTSU Moonbuggy Team Wins System Safety Award

The MTSU Moonbuggy Team won first place for the safest approach to building, testing, and racing in the 18th Annual Great Moonbuggy Race. The team was



awarded the NASA Systems Safety Award in April for the best application of System Safety Engineering. Saeed Foroudestan is the faculty advisor for the Moonbuggy Team.

### The Science of Success

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[http://www.mtsu.edu/cbas/basic\\_facts.shtml](http://www.mtsu.edu/cbas/basic_facts.shtml)

## PhD Students Socialize

CBAS hosted a cookout for faculty, students, and families of three CBAS PhD programs on April 1. Approximately 45 individuals enjoyed burgers and chips and heard remarks from Vice Provost for Research, Mike Allen, and Dean Cheatham. It was cool outside so the group ate in the Tom Jackson Building. Special thanks to Elizabeth Lamb for organizing the event.

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Faculty and Friends  
College of Basic and Applied Sciences



## The Basic Facts

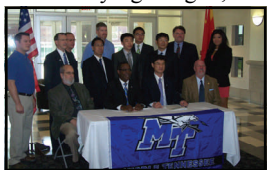
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## The Basic B.E.S.T. (Boastful Educators Sharing Talents)

All departments are invited to submit items for this column

### Aerospace

The AERO Department signed an MOU with China-Flying Dragon, Ltd. last week as a forerunner to the development of a contract for MTSU to train cohorts of Chinese pilots. President McPhee and Flying Dragon CEO, Li Ruiyi, exchanged greetings and signed copies in Chinese and English.



On March 5-8, 17 members of the MTSU Air Traffic Control Organization (ATCO) visited the Washington, DC, area. Points of interest visited by



the group were Dulles International Airport, Potomac TRACON, the Smithsonian Air and Space Museum in Washington, D.C. and the Udvar-Hazy Smithsonian National Air and Space Museum in Chantilly, VA. A behind-the-scenes tour was given at both Dulles International's control tower and the Potomac TRACON Center.

### Agribusiness/ Agriscience

Warren Gill was inducted into the Beta Theta Chapter of Alpha Gamma Rho as an honorary member. The initiation was conducted at the 2011 Founder's Day attended by both members and alumni. During Dr. Gill's four years at MTSU, enrollment has increased by over 100 students. At the same time, the number of members in AGR Fraternity has increased. Dr. Gill also



helped establish a Scholarship Endowment in the name of Joe Jack Dement, a founding father of the Beta Theta Chapter.

On March 29, Justin Gardner gave a presentation at MTSU along with Lawanna Fisher (University College) on "Using Technology Tools to Individualize Your Student's Learning Experiences." The presentation focused on using conditional release in D2L to guide students toward success, while also warning professors of the possible pitfalls associated with this tool. It was a part of the LT & ITC's eLearning Series.

### Biology

Jeffrey Walck's 2008 paper was recently listed as a "hot article" in the journal, *Plant Species Biology*.

### Engineering Technology

The Parthenon Metals SIX SIGMA project at the LaVergne plant is at the data analysis phase. The project scope is to find the most capable and consistent Parthenon supplier. The team members consist of undergraduate ET students, John N. Morgan and Robert Saye, and graduate student, Marquis Wilkins, as the project manager.

### Mathematical Sciences

Rong Luo was recently appointed as an editor for the *Journal of Protoplasms* and *Open Journal of Discrete Mathematics*.

Abdul Khaliq serves on the International Scientific Committee for the Numerical Analysis and Scientific Computing with Applications in Science and Engineering Conference to be held at the University of Science and Technology in Settat, Morocco, from April 19-20.

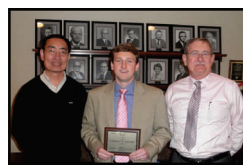
Chris Stephens has an article titled "Structure of 4-connected Claw-free Graphs Not Containing a Subdivision

of K5" that has been published in *Discrete Mathematics* 311 (2011), pp. 908-910.

Abdul Khaliq presented research titled "An ETD Crank-Nicolson Scheme for Reaction Diffusion Systems" at the SIAM Conference on Computational Science and Engineering in Reno, NV, on February 28-March 3.

Dennis Walsh published a new integer sequence (sequence A187105, number of height-2-restricted finite functions) in the *On-Line Encyclopedia of Integer Sequences* in March. The sequence, along with a link to the associated preprint titled "Notes on Height-Restricted Finite Functions," is available at <http://oeis.org/A187105>.

Tommy Axford (MTSU 2004 graduate in Actuarial Science, FSA 2010), a Consulting Actuary of BPS&M, LLC, a Wells Fargo company, spoke to students in actuarial science on March 30 about a career as an actuary, his personal experience in



actuarial exams and working as a consulting actuary, and many job

searching tips.

A presentation by graduate student, Todd Henrichs titled "Parametric Cost Modeling for Space Telescopes" has been accepted and scheduled for the Joint Statistical Meetings in Miami Beach, FL, in late July.

The following students passed actuarial exams: Exam-P/1-Yingwei Li, Xiong Lu, and Lianlian Zhou; Exam-FM/2-Xiong Lu.

### Military Science

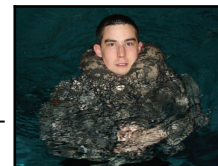
On the weekend of March 24-27, Cadets from MTSU's Reserve Officer Training Corp. (ROTC) Department participated in a Joint Field Training Exercise (JFTX) with the University of Tennessee at Martin,



Tennessee Tech University, and Vanderbilt University at Fort Knox, KY, home of the

U.S. Armor Center. The JFTX is a four-day event that provides vital hands on training for ROTC Cadets. They will use the skills they learned at this exercise throughout their Army careers. The final event was the formal swearing in of the Blue Raider Battalion's newest Cadet, Bradley Weber.

The ROTC Blue Raider Battalion conducted Combat Water Survival Training and a swim test on March 17, 2011, to complete a requirement for Cadets at MTSU to commission. The purpose of



these two events is to build confidence. In order to commission, the Cadet must demonstrate an ability to cope in the water to the Army Standard. If one has aquaphobia, the fear of water, they must fight through their fears to complete each event.

### Physics & Astronomy

Bill Robertson gave a presentation titled "Metal-less Plasmonics" on March 21 at the American Physical Society Meeting in Dallas, TX.

### CBAS MTeach

Two colleagues from UT-Austin and two from THEC visited the MTeach program on April 7. MTeach Coordinator, Leigh Gostowski, reported 26 students enrolled in STEP 2 and 49 enrolled in STEP 1 for fall 2011. She discussed successes during year one and projected even greater success in year two. Both UT-Austin and THEC officials praised MTeach as a state model replication of UTeach.