



The Basic Facts

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

MTSU and U.S. Army Sign MOU

Kyle Snyder, the new director of the Unmanned Aerial Systems (UAS) from the MTSU Aerospace Department, arranged for the U.S. Army to donate two drones for training purposes. President McPhee and Colonel Timothy Baxter signed a memorandum of un-

derstanding on August 18, agreeing to partner in support of UAS training and research. The Army hopes to hire our graduates. MTSU is the first university with which the Army has partnered in this growing area. The drones will provide hands-on training for maintenance and flight operations.

Ag Alumni Attend Special Celebration Reception

For the second year in a row, MTSU Agriculture alumni and friends attended a Celebration Reception on September 3, for the 73rd Annual Tennessee



Walking Horse National Celebration. This special event is one of the premier horse shows in the world and the alumni reception was held on World Grand Championship night. A special thanks goes to Doyle Meadows, CEO of the Celebration, and Charles McDonald, MTSU Ag Alum and former Chairman of the Celebration Board of Directors for extending this invitation to the MTSU Ag Alumni Board. Among the participants in the event were Dr. Gill, Director of the School of Agribusiness and Agriscience, and Dr. Bartel, MTSU Provost. The reception was attended by 100 MTSU Ag Alumni and friends. A portion of the proceeds from this event will go toward a scholarship fund for the MTSU School of Agribusiness and Agriscience.

The Science of Success

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State-of-the-College Address

The College of Basic and Applied Sciences held its annual State-of-the-College Address on September 8. The Address was given by **Dean Cheatham**, who highlighted CBAS awards as well as faculty, department, and student successes from the 2010-2011 academic year. The Address included end-of-year data summaries for all departments in

CBAS for information such as publications, presentations, and services. Both external and internal grant funding were presented and teaching successes were reviewed. **Dean Cheatham** also discussed faculty collaboration successes. End of the year data was gathered for every department in CBAS and is available on the CBAS website.

CBAS Faculty/Staff Win Awards

Three CBAS faculty won MTSU Foundation Awards and two faculty won special project awards. **Bruce Cahoon** (BIOL) received the Distinguished Research Award, **Daniel Prather** (AERO) won the Outstanding Achievement in Instructional Technology Award, and **Cindi Smith-Walters** (BIOL) won the Outstanding Service Award. **Scott Handy** (CHEM) and **Heather Brown** (CIM) won special project awards.

At the CBAS State-of-the-College, the following faculty/staff received awards. **Teaching:** **Callender** (AERO), **Erenso**

(PHYS); **Teaching Innovations:** **Craig** (AERO), **Zlotsky** (AERO), **Phillips** (ABAS), **Klumpe** (PHYS), **Gostowski** (MTeach); **Publications:** **Leblond** (BIOL), **Walck** (BIOL); **Presentations:** **Sadler** (BIOL), **Otter** (BIOL), **Chong** (CHEM), **Sanger** (CHEM), **Ricketts** (ABAS); **Service:** **Brown** (CIM), **Vanhook** (ET), **Khaliq** (MATH), **Smith-Walters** (BIOL); **Administrative Staff:** **Taylor** (ET), **Lawson** (CBAS); **Classified Staff:** **Burnette** (MATH), **Bleam** (CBAS). We are proud of all our faculty and staff.

Visit our newsletter web site to view all *The Basic Facts*' issues:

http://www.mtsu.edu/cbas/basic_facts.shtml



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

All departments are invited to submit items for this column

Agrribusiness/Agriscience

Warren Anderson has been appointed to serve on the Solid Waste Disposal Control Board.

Biology

Marion Wells, with co-author Terry McGauley, published "Effect of Electromagnetic Fields, and Electric Fields on Dog Tracking" in the August 26 issue of *Dog News* 27, Issue 35.

Chemistry

Norma Dunlap published a paper titled "Three-Step Synthesis of Cyclopropyl Peptidomimetics" along with student co-authors in *Organic Letters*. She also presented a talk at the National American Chemical Society Meeting in Denver, Colorado, titled "Multicomponent Discovery Based Experiments for an Honors Organic Chemistry Laboratory."

Engineering Technology

Nissan has worked with the Engineering Technology (ET) Department at MTSU in selecting eight SIX SIGMA projects in all areas of the manufacturing operation—body, trim, paint, stamping and quality—that will involve both graduate and undergraduate students this fall semester.

Rich's Products is developing two SIX SIGMA projects for their frozen food production facility in Murfreesboro, Tennessee. They are pursuing a partnership with the ET Department and will have a representative on the ET Industry Advisory Board.

Mathematical Sciences

Paige Stubbs, a McNair student mentored by [Micheale Chappell](#),

completed a successful research experience this summer. She presented her research titled "African-American Students' Participation in STEM Majors: Factoring out Failure, Striving for Success" at the recent McNair Symposium and was recognized as the "Best Presenter."



Club MARVEL is an MTSU and Murfreesboro City Schools collaboration that will bring 100 at-risk, 4th-6th grade students to the MTSU campus several times throughout the 2011-2012 school year. STEM disciplines will be the focus of Club MARVEL this year. The Mathematical Sciences Department will host an event on November 12, from 9:00-12:00 p.m. The faculty and PhD students who will be presenting are: [Dennis Walsh](#), [Angie Murdock](#), [Johnson Reng](#), [Jan Zijlstra](#), [Wes Baxter](#), [Victoria Hamlin](#), [Rongjin Huang](#), [Chris Hart](#), [Theresa Schmidt](#), [Angela Barlow](#), [Rechel Sefton](#) (tentative), and [Robin Rosterfer](#).

Dmitry A. Terekhov, a current actuarial science (ACSI) student who has passed two exams from the Society of Actuaries, received a \$3,000 scholarship from the South Eastern Actuarial Conference.

[Don Hong](#) gave a talk at the Canada-China-USA Conference on "Modern Techniques for Computational Mathematics" held at the University of Alberta, Edmonton, Canada, on August 14-22.

Military Science

Cadet Hannah Juergens graduated from the Army ROTC Leadership Training Course (LTC) at Ft. Knox, Kentucky, this past summer. During LTC, Cadet Juergens was exposed to four weeks of intense field and classroom training. The course is an accel-

erated version of the first two years of college Army ROTC.

The first of three phases of training was called the Soldier First Phase. This Soldier First Phase is designed to immerse Cadets in the ways of the Army. It included physical training, drill and ceremony, and team development courses. The second phase of the course, the Warrior Leader Phase, tested each Cadet's personal courage. Each Cadet was expected to successfully complete training such as combat water survival training, rappelling, land navigation and marksmanship. The third phase, the Bold Leader Phase, tested each Cadet's individual leadership skills as they learned squad-level operations by performing challenging field operations. During this phase each Cadet was given the position of squad leader and expected to successfully lead a mission.

Cadet Hannah Juergens' performance during LTC was outstanding, and she received an award for the



highest APFT score in her company. Today

Cadet Juergens is in the Military Science Advance Course (MSIII) class preparing for her Leadership Development Accessions Camp scheduled for Ft. Lewis, Washington, during the summer months of 2012.

U.S. Army ROTC cadets are working on the Ambassador's Project this summer for 21 days, teaching English to the Tanzania Peoples Defense Force (TPDF). This Mission is for our future leaders of tomorrow to become immersed into foreign cultures. The culture exchange that both sides experienced will create security, cooperation, and lasting relationships.

During this CULP trip to Tanzania ten Cadets, one Cadre member and one college professor were challenged with pioneering the program.

They taught in three schools—Makongo, Jitegemee and Airwing—which were geographically separated by 45 minutes travel. In order to accomplish this mission, the Cadets organized into staff, special projects, and leadership positions. One of the mission goals was to capture information and develop an operation order for next

year's rotation. After a long day of teaching, the Cadets would gather every evening and write personal journals, update Team Report for their own school and conduct an After Action Review for the entire trip.

In addition to their staff positions the Cadets were organized into three teams. The teams were responsible for convoying, developing lesson plans with their respective school staff, maintaining accountability, communication, and weekly timelines. In addition each team conducted a closing ceremony and presented each headmaster a gift.



Physics & Astronomy

First Friday Star Parties for October - December, 2011
6:30 p.m., WPS 102 and Outside

Friday, October 7
"Tennessee's Meteorite Impact Sites"
J. Ford

Friday, November 4
"Galaxy Zoo: Contributing to Astronomy Online"
J. Wallin

Friday, December 2
"Juno to Jupiter"
C. Higgins