



The Basic Facts

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

CBAS Outreach to Public Schools

Rebecca and Jan Zijlstra are in their third year of organizing the Camp Prism science and math camp for over 20 Murfreesboro fifth-graders. The camp took place at Hobgood Elementary School. Three public school teachers assisted Rebecca and Jan. The children saw how the City of Murfreesboro uses technology to catch criminals, they sat in the mayor's chair, burned

money in Judith Iriarte-Gross' lab, rode moon buggies and solar bikes at Saeed Foroudastan's lab, and studied mathematics under Zijlstra.

Tom Cheatham and the MTSU Educational Talent Search (METS) staff (Lynne Walker, Lisa Bunde and Lana Duke) chaperoned a group of 22 high school students on a tour of New York City. They visited New York University, toured the United Nations Building, saw the Statue of Liberty, and attended a Broadway play. It was a wonderful



experience for economically-disadvantaged students from Warren, Coffee, and Grundy Counties.



Triple Victory Under the Sun

Faculty advisors Saeed Foroudastan and Ken Sergeant led teams of students in developing entries for solar BikeRayce USA. Ken Garrett was team leader; Allan Hall and Ritchie Calton were team captains. Special thanks to

Ron McBride and Rick Taylor for assistance with the projects. The three MTSU entries won

1st, 2nd and 3rd place nationally in the S-Class 200-kilometer category. This is a wonderful learning opportunity for the many students who worked on the project.



Math Hosts 17th Cumberland Conference

It was great to see 100 mathematicians from the U.S., England, China and Canada talking mathematics at MTSU May 20-22. Xiaoya Zha, Don Nelson, Rong Luo and Suk Jai Seo hosted the

conference which focuses on combinatorics, graph theory, and computing. Invited speakers were from England, Canada, Bell Labs and Ohio State. MTSU has a strong research group in this area.



The Science of Success

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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

Kevin Downs will provide instruction relative to poultry science for the Governor's School of Agriculture in July. The group will visit the facilities at MTSU and be exposed to milk processing operations, alternative energy sources and the horse science program.

Jessica Gentry coordinated a three-day beef camp June 11-13 which was attended by sixty youth from across the state.

Tim Redd, farm manager, organized an advisory committee for the School of Agribusiness and Agriscience.

Harley Foutch, a past president of the North American Colleges and Teachers of Agriculture (NACTA), was honored for his past service as president at a NACTA president's appreciation and awards banquet.

Warren Anderson worked with the University of Tennessee extension service in developing a vegetable garden for Progressive Farmer.

ABAS student Sarah Boyer is the manger of the garden and will record garden yields.

Biology

Cindi Smith-Walters was invited to chair the college science teaching advisory board.

George Benz co-authored a paper titled "A Second Species of Arctic Shark: Pacific Sleeper Shark Somniosus Pacificus From Point Hope Alaska" which was recently published in Polar Biology, an international journal. He recently presented an invited co-authored perspective in a special workshop held at the annual meeting of the American Elasmobranch Society in Norman, Oklahoma, and also served as a workshop panelist. The perspective was titled "Infectious Agents and the Liberation of Captive Elasmobranchs."

Vince Cobb published "Diet and Prey Size of the Flathead Snake, Tantilla

Gracilis" published in Copeia, pp. 397-402.

Padgett Kelly presented "The Cultural and Ecological History of the Valley Isle" at the National Marine Educator's International Conference July 19 at Eckerd College in St. Petersburg, Florida.

Vincent Cobb attended the Snake Ecology Group IV Conference May 23-25 in Illinois.

Vincent Cobb, Judith Shardo, Matt Klukowski, George Benz and several graduate students attended the joint annual meetings of the American Society of Ichthyologists and Herpetologists, Herpetologists' League and Society for the Study of Amphibians and Reptiles May 27-31.

Presentations made at the joint herpetology meeting mentioned above are as follows:

Vincent Cobb presented "Initial Den Location Behavior By a Litter of Timber Rattlesnakes in Tennessee." Student Jeff Green presented "Daily Body Temperature Selection of Black Racers (Coluber Constrictor) in Middle Tennessee." **Vince Cobb** was co-author.

Matt Klukowski presented "Seasonal Changes in Abundance of Chiggers (Acari: Trombiculidae) and Infestations on Fence Lizards, Sceloporus Undulatus."

George Benz co-authored a poster titled "Developing an Environmental Awareness Program in the Tennessee Valley; Using Turtles as Model Organisms."



John Zamora presented a poster at the national meeting of the American Society for Microbiology. The presentation was titled "Isolation and Identification of Lipase-Producing Microorganisms. Co-authors were K. Logan-Dunn and **John Zamora**.

The following presentations were

made at the American Society for Microbiology in New Orleans May 23-27:

Adam Farmer, Christin Tinkle and Stephen Wright presented "Fluorescence-Based Detection and Differentiation of Bacterial Antigens by Specific Antibodies Bound to Glass Substrates."

Sarah Collins, Melissa Miller and Stephen Wright presented "Detection of Borrelia Species Among Ticks Collected From Selected Eastern States."

Computer Science

Richard Detmer presented **Judy Hankins** with a gold medallion for 25 years of service at MTSU. Congratulating her are **Chrisila Pettey** and **Suk**



Jai Seo.

Brenda Parker, Cen Li, Judy Hankins, and Roland Untch attended a workshop titled, "Modern Software Development Using Microsoft.NET" at Lake Forest College.

Ralph Butler traveled to the Oak Ridge Laboratory in Knoxville, May 23-24, 2004 to conduct research.

Richard Detmer, Judy Hankins, Brenda Parker, Chrisila Pettey and Jungsoon Yoo recently received recognition by the Division of Student Affairs as those who are "making a difference" in the lives of our students.

Engineering Technology/Industrial Studies

Lean Manufacturing certifications were awarded to two graduate students and one undergraduate student after successfully completing "Productivity Strategies" as well as industry projects in-

volving Value Stream Mapping (VSM).

Thirteen students successfully completed Industrial Quality Technology during summer session 1. They have been divided into 5 teams and assigned to 5 different companies (MAHLE Tennex, Square-D, Johnson Controls, Metalworking Products, and Tenneco Automotive) to work on Six Sigma projects. Once these projects are completed, the students will be certified as Green Belts in Six Sigma.

Military Science

Cadets from the Blue Raider Army ROTC program are involved in training throughout the United States and overseas. Twenty-two dedicated juniors will attend the Leadership Development Advanced Course (LDAC) at Ft. Lewis, Washington. Five sophomore cadets will attend the Leadership Development Course at Ft. Knox, Kentucky where they will obtain credit for the ROTC freshman and sophomore classes. Seven adventurous cadets will train and test, making five parachute jumps to earn the U.S. Army Parachute Badge. Other cadets will train alongside with West Point cadets, receive a unique training experience with the Special Forces, and test for the Air Assault Badge at Ft. Campbell, Kentucky.

Nursing

Suzanne Prevost presented "Celebrating Certification" at the American Association of Critical Care Nurses National Teaching Institute in Orlando.

Physics & Astronomy

Bill Robertson presented "Surface Wave Biosensor Based on Surface Electromagnetic Waves" at the Photonics Applications, Systems and Technologies conference in San Francisco May 19.