



# The Basic Facts

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

## Posters-at-the-Capitol

### The Science of Success

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**C**BAS hosted the first-ever undergraduate research Posters-at-the-Capitol on Wednesday, February

1, 2006. TBR universities who participated included APSU, ETSU, TTU, TSU and MTSU. Thirty-one undergraduates presented their research to the Governor and state legislators at the Capitol. CBAS organized the event in which ten MTSU students from three colleges presented. MTSU students were selected from the university-wide

Scholars Day Undergraduate Poster Session in the fall. The National Council on Undergraduate Research is encouraging states to host such events to inform legislators about research being conducted by students. We hope this will become an annual event.



## Science Building Closer

The long-awaited and much-needed new science building is a couple steps closer. Governor Bredesen has recommended that \$15 million be included in the budget for fiscal year 2006-2007 to begin the planning and design of a new science building for MTSU. In addition, MTSU has retained science facility planning specialists, Dober, Lidsky, Craig and Associates, from Boston, MA. Company President



Art Lidsky and his team have already visited MTSU several times to begin discussions regarding design of the new science building. Programming discussions include faculty from Biology, Chemistry, Computer Science, Geosciences, Mathematical Sciences and Physics and Astronomy. Dean Cheatham and Patti Miller, Assistant

Vice President for Campus Planning, are also involved in the discussions. At this point, Mr. Lidsky is determining the space needs for each of the departments, where shared spaces might exist, and whether renovation of spaces would be an option. It is a bit early to begin packing for a move into another science facility since Mr. Lidsky indicated that, if all goes well, the new building will be ready for occupancy in about five years.



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

<http://www.mtsu.edu/~collbas/newsletters>

The Master of Science in Nursing Regents Online Degree Program is currently being considered for Initial Accreditation by the National League for Nursing Accrediting Commission (NLNAC). A site visit will be hosted February 21-23. The public is invited to meet with reviewers during the visit. Written comments will be shared with the site visitors.

## Grants Awarded

The State of Tennessee recently announced grants for K-12 faculty development, and as always CBAS was a big winner. Principal Investigators include Dr. Pat Patterson, "Connecting Physical Science Concepts: A Total Approach to Increasing Student Achievement"; Dr. Mary Martin, "Shaping the World-Geometric Understanding Through Informal Investiga-

tion, Geology & Weather"; Dr. Dovie Kimmins (two grants), "Science/Mathematics Synergies: Earth, Space and Environment" and "Elk River Partnership"; and Dr. Ray Phillips, "Hardeman/McNairy Partnership." Together their grants total \$628,000. Congratulations to each PI and to all the Co-PIs who are participating.





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

All departments are invited to submit items for this column

### Aerospace

Wayne Dornan and Bill Allen attended the Council on Aviation Accreditation (CAA) and the University Aviation Association (UAA) joint meeting at Auburn University in February.

Wayne Dornan was recently elected as chairman of the Publications Committee for the University Aviation Association (UAA). Bill Allen has also been elected to chair a national committee of the UAA.

Wayne Dornan wrote a handbook titled "Flight Management System for the Canadian Regional Jet (CRJ-200): A Training Guide." The handbook will be used in one of Wayne's Aerospace classes. Aerosim Technologies, a software developer, has approached Wayne about possibly incorporating it into industry training programs as well.



Larry Wilson and his son, both MTSU Aerospace graduates, recently piloted a Boeing 747

### Agribusiness/ Agriscience

Jessica Gentry presented "Effects of Tasco in Free-Choice Mineral on Beef Cow Performance" at the Southern Association of Agricultural Scientists meeting in Orlando, FL, February 6.

William Day was invited to attend the Ninth International Symposium on Equine Reproduction in The Netherlands in August. He will present a poster on ongoing research at the Horse Science Center entitled "Establishment of Distinct Cellular Compartments in Vitro Using a Clotting Culture System With Equine Endometrial Tissue."

Harry Djunaidi presented two selected papers at Southern Agricultural Economics Association Annual Meetings February 5-8. One presentation was "Surveys: What Does One Need to Know More About Them?" and the second paper, coauthored with Tim Redd, was titled "Do We Prepare Our Students Well for the Job Markets?" In

addition to presenting papers, he also chaired and moderated a number of sessions at the meeting.

### Biology

Padgett Kelly presented a workshop on "Earth Counts: Integrating Math and Human Ecology University" along with Stephanie Peterson at the Gaylord Opryland Resort & Convention Center.

Vince Cobb and former graduate student Chad Hanna recently published "Effect of Temperature on Hatching and Nest Site Selection in the Green Lynx Spider, *Penucellia Viridans* (Araneae: Oxyopidae)" in the *Journal of Thermal Biology*.

Kim Cleary Sadler and Cindi Smith-Walters co-presented a paper January 20 in Portland, OR, at the Association for the Education of Teachers of Science titled "No Child Left Inside: An Argument for Situated Systematic Nature Studies in Preservice Teacher Preparation Programs."

Cindi Smith-Walters and MTSU Center for Environmental Education was the lead trainer for the Project Learning Tree (PLT) facilitator training February 3-4 at DuBose Conference Center in Monteagle.

Ranger Rick, a publication of the National Wildlife Federation (NWF) has invited Cindi Smith-Walters to serve on their advisory board for Ranger Rick Magazines Educator's Guide.



### Chemistry

Judith Iriarte-Gross is spending the spring semester working with Dr. Diane Bunce of the Department of Chemistry at the Catholic Uni-

versity of America. They are working jointly on a chemical education research project titled "Effects of ConceptTests and Use of Student Response Systems on Student Understanding and Achievement in General Chemistry."

### Engineering Technology and Industrial Studies

Charles Perry served as a judge for the 2006 Excellence in Manufacturing Awards. This program, sponsored by the Nashville Area Chamber of Commerce, Lattimore Black Morgan & Cain, and Wachovia, shines the spotlight on the great work being done each day by Middle Tennessee manufacturers.

### Math

Curtis Church co-authored "Phase II Trial of Subcutaneous Interferon Followed by Intravenous Hybrid Bolus/Continuous Infusion Interleukin-2 in the Treatment of Renal Cell Carcinoma: Final Results of Cancer Biotherapy Research Group 95-09," *Cancer Biotherapy and Radiopharmaceuticals* scheduled for publication in Vol. 21, No. 2, 2006.

Abdul Khaliq was a panel member at the workshop on financial mathematics held in Pakistan December 24-25. He also co-presented "Computational PDE Approach in Financial Mathematics."

Anhua Lin presented "Finding the Least-Norm Solution of Semi Definite Programs" at the Fifth Annual Hawaii International Conference on Statistics, Mathematics, and Related Fields held in Honolulu, HI, January 16-18.

Dennis Walsh presented "The Probability of a Tied Vote Under a Multiple Vote Scheme" at the Joint Mathematics Meetings in San Antonio, TX, January 11-14.

### Military Science

Twenty-four cadets visited Ft. Campbell, KY, for hands-on training with the UH-60 Black-Hawk Helicopter simulator and a 10-man collective battlefield engagement



skills trainer simulator. Each cadet had the opportunity to fly the "state-of-the-art helicopter simulator" in a variety of aviation scenarios. Following this, the cadets combined in a team to test their marksmanship skills in various scenarios on the Engagement Skills Trainer (EST). The EST is used by military and law enforcement officers using realistic military and criminal scenarios. Cadets majoring in Aerospace and Criminal Justice greatly benefited from this experience.

### Nursing

Lynn Parsons presented "Nursing Students: A Constantly Changing Audience" at the Southern Nursing Research Society Conference in Memphis February 2. Congratulations to Linda Wofford who received the "Society of Pediatric Nurses Education Award for 2006!"

### Physics & Astronomy

Undergraduate student Travis Denton has been offered an international summer research fellowship in optics this summer doing research in France or Germany. Travis is the third major in five years to receive this honor, awarded to only 16 students from across the nation each year.

Chuck Higgins received a grant for over \$27,000 from THEC. The title of the grant is "Learning Mathematics Through Science (LMS)."