



The Basic Facts

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

School of Nursing Receives Challenge Grant

MTSU received a \$1.74 million challenge grant from the Murfreesboro-based Christy Houston Foundation for expansion of the Cason-Kennedy Nursing Building on campus.

The added space will accommodate more nursing students, which is responsive to the critical shortage of registered nurses (RN) not only in Tennessee but the entire nation as well. President Sidney A. McPhee said, "Financial support for the expanded facilities will allow us to move forward with our plans to offer a Master of Science in Nursing degree. The grant from the Christy Houston Foundation will take MTSU to a new level of nursing education, which will benefit residents across Tennessee."

Director of the MTSU School of Nurs-



ing, Dr. Pam Holder, says that additional space will accommodate growth

in the program, additional classrooms and laboratory space. A larger facility would help meet these needs. Dr. Holder went on to say, "Expanded facilities would move the School of Nursing toward its objective to be one of the five best baccalaureate nursing programs in the nation. Achieving this goal would help alleviate the current national nursing shortage by increasing the

number of graduates."

"Plans for the third-floor addition would increase existing space in the nursing building by 15,800 square feet," Holder said. The additional space would include two master classrooms, a demonstration lab, four seminar rooms, two video-conferencing rooms, a research center, five faculty offices, a computer-testing laboratory and a telehealth laboratory.

Holder went on to say, "Students must learn how to practice in telehealth-intensive environments. They must understand how dramatically information technology impacts care delivery."

The Science of Success

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U.S. Rep. Bart Gordon Secures \$720,000 for Aeronautics Research!



U.S. Representative Bart Gordon, a long time friend to MTSU, has secured \$720,000 in federal funding for Aeronautics

Research. MTSU will test and demonstrate a cutting-edge flight safety program designed to automate air traffic control.

The National Aeronautics and Space Administration is funding the program through its Small Aircraft Transportation System.

The \$720,000 in NASA funding will help to achieve the goal of helping the airline industry move air traffic control from the ground to the cockpit and shift more air traffic to smaller, less used air-

ports.

"More than 5,000 airports are located in the U.S.," Gordon said. "But only 80% of all travelers depart from the top 64 airports."

Gordon went on to say, "As the nation's major airline hubs exceed their capacities, it's vital we shift that over capacity to the smaller airports where there may not even be a ground control crew. Moving that type of information to the cockpit will only make planes safer and more efficient. We have to provide training programs that can teach these emerging technologies to our pilots. MTSU is in a great position to take the lead on this kind of new training."

Dr. Paul Craig has worked with

Representative Gordon for over one year to secure funds for the SAFER Initiative. Craig, who will be Principal Investigator for this research, will collaborate with Dr. John Bertrand an Associate Professor in the Aerospace Department.

"In 25 years airplanes will fly using technology that is just now emerging," said Dr. Paul Craig, chairperson of the Aerospace Department. "Pilots today fly using technology from the last century. So how will we make the leap from where we are to where we are going? The SAFER project will help fill this gap. The SAFER program will expose today's pilots to tomorrow's technology so new training techniques can be used."

Ten CBAS Undergraduate Students Recognized as Research Scholars

Dean Tom Cheatham hosted the MTSU Undergraduate Research Mentoring Program for the College of Basic and Applied Sciences this past February 11, 2003. The recognition banquet was held in the James Union Building on campus.

The following students were recognized along with their faculty mentor: Eric Freundt (Biology) —Dr. Stephen Wright; Lucy Gibson—Dr. Kevin Downs (ABAS); Cynthia Allison— Dr. Andrienne Friedli

(Chemistry); Angel Long—Dr. Ginger Rowell (Mathematical Sciences); Amy Koonce—Mr. Austin Cheney (ETIS); Linda Hendrickson—Dr. Judith Iriarte-Gross (Chemistry); Jeremy Dahmen—Dr. Jeff LeBlond (Biology); David Noga—Dr. Andrienne Friedli (Chemistry); Ileah McKee—Dr. Ginger Rowell (Mathematical Sciences) and J. Paige Silcox—Dr. Steve Howard (Biology).

Dr. Cheatham presented the traits of excellent mentors and described the ideal faculty mentor and the ideal protégé. He shared his own positive experience with his dissertation chair and the fact that they keep in touch and visit annually. Mentor—protégé' relationships can last a lifetime and positively impact students.



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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 MTSU Block and Bridle Club attended their National Convention in Washington D.C. on January 23-26, 2003. Nine students from the School of Agribusiness and Agriscience were accompanied by their advisor **Jessica Gentry** on the trip. Students participated in educational sessions, toured the D.C. area and spent one day on an agricultural bus tour. Some of the farm tour sites included Lancaster Co. Pennsylvania area, Gettysburg Pennsylvania area, and agricultural regions in Virginia and Maryland.

MTSU students from the School of Agribusiness and Agriscience recently competed in the Animal Science Quadrathlon competition held in conjunction with the Southern Section American Society of Animal Science meetings held Feb. 1-3, 2003 in Mobile, Alabama. Nine universities competed in the Quadrathlon which consisted of a practical exam at different farm units at Auburn University, a written exam, an animal science quiz bowl, and an oral presentation. Four animal science and pre-veterinary science majors represented MTSU at this competition. Coaches were **Jessica Gentry and Kevin Downs**.

The MTSU Equestrian Team maintains the lead in regional standings. Competitors from UTK, Murray State University, UTM, Western Kentucky University and the University of the South head into the two final western shows and the hunter seat shows at the MTSU Livestock Center from February 21-23, 2003.

Biology
Cindi Smith-Walters recently co-authored a curriculum guide, "Catfish In the Water." The guide accompanies the student book, "A Catfish Lives Here," and will be distributed to all metro teachers and

and others in the Cumberland River watershed.

Jeffrey Walck co-authored a paper with colleagues at the Field Museum of Natural History (Chicago) and Museum National d'Histoire Naturelle (Paris) in the Annals of the Missouri Botanical Garden. The paper was titled, "Phylogenetic and Biogeographic Diversification in Osmorhiza (Apiaceae)." He also co-authored a paper with **Siti Hidayati** titled, "Contrasting Seed Germination Patterns for Intracontinental Disjuncts of *Heuchera* (*Saxifragaceae*) in North America: The Eastern Temperate *H. Parviflora* and the Western Montane *H. Cylindrica*." The paper was published in the *Canadian Journal of Botany*.

Sandra Johnson has been invited to speak at Central Missouri State University next month on the topic, "Burning Issues." The main emphasis of the talk is to discuss the impact of prescribed burning in conservation efforts.

Chemistry
Judith Iriarte-Gross and Mari Weller (Physics and Astronomy), members on the TWISTER (Tennessee Women in Science, Technology, Engineering and Research) Advisory Board, helped coordinate an event for high school women. The program is an expanded version of the Expanding Your Horizons Program in Mathematics and Science Conference which was held in the fall 2002 semester. Several presentations were held. The CBAS supported the event by providing materials for the "goodie bag."

Preston MacDougall was invited to the NSF headquarters in Arlington, Virginia to serve as a panelist reviewing high-risk/high-payoff proposals regarding nanotechnology. This is Dr. MacDougall's second year of service

on the panel.

Announcement: Dr. Cornelia Gillyard will present a seminar, "Programs that Work for Women in Science and Engineering" in DSB #100 on 3/6/2003 from 11:00-12:00 p.m.

Computer Science
Roland Untch has been nominated for the "Innovations Award in Videoconferencing" granted by the TBR Distance Education Committee.

Engineering Technology and Industrial Studies
On January 31, 2003 the Tennessee Higher Education Commission (THEC) approved the Concrete Industry Management program as a full major.
David Hatfield presented the Construction Management Program to the Middle Tennessee Realtors Board.

Mathematical Sciences
Mary Enderson presented at the "Teaching-Learning" seminar sponsored by the CBAS on the topic, "Teaching to Learn and Learning to Teach: Moving Beyond the Classroom."

Ginger Rowell attended the 2003 Joint Mathematical Meetings in Baltimore, Maryland. She presented a paper, "A Two-Semester Long Survey Project: Science, Technology, Engineering and Mathematics Attitudes." She co-presented a poster with MTSU Mathematics major Angel Long on the topic "Implementing New Materials into a Post-Calculus Statistics Class." **Ginger Rowell** also assisted with teaching a four-hour mini-course, "Teaching Introductory Statistics Using a Workshop Approach."

Nursing
Ken Edmisson, Shelia Marquart and Suzanne Prevost co-presented at the "Teaching-Learning" seminar sponsored by the CBAS on the topic, "Opportunities and Challenges with Teaching in Clinical Settings."

Physics
Paul Lee spent the day at Freedom Middle School in Franklin, Tennessee. He made polymers with the class and investigated chemical reactions. On Feb. 18 he attended a 3rd grade class at Reeves-Rogers and talked about comets and meteorites. He helped students make a comet from yogurt, water, sand and dry ice.
Mari Weller spoke to the 8th grade science class at Brentwood Middle School about, "How Science Works and Working in Science."
Chuck Higgins spoke on the topic, "Saturn" in WPS on 2/7/2003.

Bill Robertson presented on the topic, "Wave Propagation in Periodic Media-Acoustic and Electrical Analogs of Photonic Band Gap Materials," at the University of Tennessee Space Institute in Tullahoma, Tennessee.

Eric Klumpe was interviewed by *Today's Response* regarding the investigation of NASA's Columbia shuttle disaster.

CBAS
Lynn Parsons co-presented an integrative research review in a national audio conference on the topic, "Osteoporosis in Men: Incidence, Prevention and Treatment." She also presented at Western Kentucky University on the topic, "Nurse Delegation Decision-Making: A Hands On Workshop."