



# The Basic Facts

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

## Cooperative Education in B & A Sciences

### The Science of Success

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"I learned so much more than just skills in the Co-op program. Taking the leap into the *real world* allowed me to see life in a different light. I learned to be independent, responsible, self-motivated, out-going, and confident. I learned that there is more to a job than the technical skills it requires."

This is a paraphrase from a former ETIS co-op student, Ms. Wendy Fisher, who is now a Nashville Area Supervisor with the Tennessee Occupational Safety and Health Administration (TOSHA). Cooperative education provides rich, rewarding, life-expanding experiences for students.

The MTSU Cooperative Education Program, directed by Dr. Wayne Rollins, began in the College of Basic and Applied Sciences, and the college is still a strong supporter of the program.

Each department has a Co-op Coordinator -- Warren Anderson (ABAS), Ron Ferrara (AERO), George Murphy (BIOL), Earl Pearson (CHEM), Mack Thweatt (CSCI), Dick Redditt (ETIS), Jim Balch (MATH), Vic Montemayor (PHYS).

During spring semester 2001, the college has 14 students working in cooperative education positions from Memphis to Washington, DC. ETIS

has the largest number of students in the co-op program (6). AERO and CSCI each have three, ABAS and CHEM each have one.

While we are pleased that these 14 students are experiencing the real world of work as part of their academic program, with over 3400 majors in the college it seems more students would want to participate. If there is anything the dean's office can do to make the cooperative education program more attractive to students in the college, please let us know.

For more information on the program, visit their web page at <http://www.mtsu.edu/~cooped/>.

#### Special points of interest:

- Student Learns About "Real World"
- Undergraduate Researchers Earn Prizes
- (Task) Forces to be Reckoned With!
- Who is B.E.S.T.? See Page 2 and learn what your colleagues are doing within

## Sixth Annual Undergraduate Research Symposium

The B & A Sciences Undergraduate Research Council hosted the sixth annual research symposium for undergraduates on April 12.

It was a wonderful display of the creativity and ingenuity of our students, and the dedication of faculty mentoring undergraduates.

Twenty-two students presented posters highlighting their research. Students presenting were from Biology, Chemistry, Computer Science, Mathematics, and Nursing. Biology sponsored five posters, Chemistry had fourteen, and Mathematics, Nursing and Computer

Science each had one student presenting.

A team of faculty judges viewed the presentations, interviewed the students, and selected the top three projects, where were:

- **1st Prize**  
"The Efficacy of Warming Blankets for Surgical Patients"  
Ms. Deborah Key and Dr. Stephen Krau, School of Nursing
- **2nd Prize**  
"Characterization of Organosilance Modified Silica Spheres using Atomic Force Microscopy"  
Ms. Elizabeth Childress and Dr. Andrienne Friedli, Department of

Chemistry

- **3rd Prize**  
"Temperature pH Effects on Lead Leaching from Crystal Mugs"  
Ms. Jennifer Pollock and Dr. John DiVincenzo, Department of Chemistry

To see the complete symposium program, visit the undergraduate research web site at <http://www.mtsu.edu/~collbas/UndergradResearch>.

All abstracts from the spring 2001 symposium will be published in an issue of *Scientia*, the college's on-line student-controlled science journal.

Visit the *Scientia* web site at <http://www.mtsu.edu/~scientia>.

## May the (Task) Force Be With You!

Middle Tennessee State University has several Task Force Committees working to address issues and concerns of the University community.

Many chairs and faculty of the Basic and Applied Sciences College serve on these various committees, and we want to take this opportunity to profile as many of these as possible.

Our first profile is of the Commerce and Agribusiness Partnership Task Force which is co-chaired by Dr. Harley Fouch

and Dr. Earl Thomas. B & A Sciences faculty serving on the committee are Anne Brzezicki, Tony Halterlein, Tony Johnston, Dave Whitaker, Alphonse Carter, Jr., John DiVincenzo, Amy Jetton, and Jim Lorenz. Additionally 14 members from outside the college serve on the committee.

The task force's goals and objectives are to develop strategies based on needs, strengths, and opportunities which will impact the quality and delivery of commerce and agribusi-

ness to our various constituencies. A first draft of the Partnership Task Force has been completed, and time lines are now being given consideration for implementation.

The Basic Facts would like to profile many other task force committees, but we need information from members of these committees. If you would like to have your task force committee profiled, please email information to [jcar-ter@mtsu.edu](mailto:jcar-ter@mtsu.edu).

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

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



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

All departments are invited to submit items for this column

### Agribusiness/Agriscience

The Middle Tennessee Regional FFA Livestock and Dairy Judging Contest was held on April 2 at the Tennessee Livestock Center. Approximately 400 junior and senior FFA students competed for honors in livestock and dairy evaluation, placing classes, and oral reasons. The winning team was from Cumberland County High School. The event was sponsored by the School of Agribusiness and Agriscience.

The Tennessee Association of College Teachers of Agriculture held its annual state meeting at the Horticultural Education Center on April 3. TACTA was hosted by ABAS, and Dean E. Ray Phillips welcomed 20 educators from UTM, APSU, TSU, MTSU, TTU and UTK. TSU will host the 2002 meeting.

### Biology

Dr. Jeffrey Walck presented papers at the Ninth Symposium on the Natural History of Lower Tennessee and Cumberland River Valleys held at Land Between the Lakes in March. The papers were titled "Dormancy-Break and Germination Requirements of Two Evening-Primroses: *Oenothera Macrocarpa* and *O. Triloba* (Onagraceae)," "A Comparison of the Growth and Reproductive Characteristics of the Invasive *Ligustrum Sinense* and the Native *Forestiera Ligustrina* (Oleaceae)," and "A Comparative Germination Study of an Eastern and Western North American

Heuchera Species (Saxifragaceae)."

### Computer Science

Drs. Chrisila Pettey, Judy Hankins (CSCI), Judith Iriarte-Gross (CHEM), Ginger Rowell (MATH), and Ms. Brenda Parker (CSCI) have submitted a grant application to the National Science Foundation on Gender Equity.

### Chemistry

Xintao (Grace) Wang, a chemistry graduate student, gave a presentation entitled "Progress Toward the Synthesis of Cyclopropyl Peptidomimetics of D-Ala-D-Ala" at the April 12 weekly seminar series given by the Chemistry Department.

### Engineering Technology/Industrial Studies

Dr. Saeed Foroudestan co-authored an article published in the *Mechanics Research Communications* journal entitled "A Simple Unified Age Forming Model."

Mr. Austin Cheney, Director of the Concrete Industry Management program and Ms. Debbie Londre, CIM Coordinator of Marketing and Recruitment, accompanied 14 students to the World of Concrete held in Las Vegas, Nevada, in February. The World of Concrete is the largest annual commercial construction trade show in the world. CIM was among

1600 exhibitors at the show with each student and Ms. Londre taking a turn "manning" the booth. The students attended three different seminars of their choice out of the 88 seminars offered.

### Mathematical Sciences

On March 16th, a group of students and faculty led by Dr. Xiaoya Zha and Dr. Don Nelson visited Whirlpool Corporation's Global Technology Center in LaVergne, TN. Whirlpool's Anne McSweeney, Yuqi Chen, and Dan Maxwell, among others, gave presentations on product design, dynamic modeling, and experimental design and testing. A highlight of the session involved a VIP tour of the production facility. MTSU's group came away with a real feel for the kinds of mathematics and statistics that Whirlpool engineers use on a daily basis. Everyone was thrilled! MTSU and the Math Department wish to thank our friends at the Whirlpool Global Technology Center -- our hosts Anne, Yuqi, and Dan; and Mike Wong, Jurgen Pannock, and Jatin Khanpara -- for their generosity, energy, and inspirational support. Thank you!

### Nursing

Dr. Pam Holder, Director of the MTSU School of Nursing, was elected President of the Tennessee Deans and Directors group for the state of Tennessee in March at Nashville.

Dr. Jenny Sauls presented on the topic "Men's Health Issues" and

"Preventing Heart Disease and Stroke" in April as part of the parish nursing program for the First United Methodist Church in Murfreesboro. Dr. Sauls initiated this program in January 2001.

Dr. Lynn Parsons presented on the topic "Empowerment Through Delegation: A Primary Management Skill for Rehabilitation Nurses" at the Canadian National Rehabilitation Nursing Conference in Vancouver, BC.

Ms. Judy Cambell co-authored an article with Dr. Ron Aday (Sociology) entitled "Benefits of a Nurse-Managed Wellness Program: A Senior Center Model in the Journal of Gerontological Nursing," Vol. 27 (3), 34-43, featured in *Healthy People 2010*.

Dr. Maria Smith authored an article for publication in the March issue of *The Region Three Connection*, a publication of Sigma Theta Tau International Honor Society of Nursing. The article is entitled, "Excellence.com." Dr. Smith is Column Editor for Technology for the publication.

Dr. Karen Ward presented on the topic "Managing Stress" at the First Methodist Church in Murfreesboro as part of the Parish

