

# CENTERS AND PROGRAMS

SCHOLARS WEEK  
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## Business and Economic Research Center

Director: David Penn;  
Associate Director: Murat Arik;  
Sally Govan, Editor;  
Kitty Kulp, Secretary

The Center is engaged in research activities for businesses, government, civic organizations, and the MTSU community by contract and as part of our overall mission. The BERC maintains a website documenting current economic conditions including databases on housing construction and employment. Regular publications (online) include *Tennessee's Business* magazine and quarterly newsletters *Midstate Economic Indicators*, *Global Commerce*, and *Tennessee Housing Market Brief* (sponsored by THDA). Recent studies include “Increasing Competitiveness through Strengthening Regional Industrial Clusters: Middle Tennessee Marketing Region” and “An Economic Assessment: Findings and Challenges—Maury County, Tennessee.” Recent presentations include “Workforce Issues” to Tennessee state legislative staff (as part of a public issues forum hosted by the Center for Effective Leadership at the University of Tennessee Institute for Public Service) and “Economic Outlook for the U.S. and Tennessee” to the Tennessee Concrete Association. The BERC supports a number of databases for use by the faculty and students of the College of Business.

[www.mtsu.edu/~berc](http://www.mtsu.edu/~berc)

## The Center for Historic Preservation

Director: C. Van West

The Center for Historic Preservation is celebrating its 25<sup>th</sup> anniversary in 2009, *Barns of Tennessee*, by Caneta S. Hankins, assistant director, and Michael T. Gavin, preservation specialist with the Center, is a partnership with readers and staff of *The Tennessee Magazine*. Barn types, function, agricultural history and current statistics place in context the stories that accompanied the 350 photographs submitted by individuals from across the state. At least one barn from each of the state's 95 counties is included in the 160-page book.

The Tennessee Century Farms program, a statewide project of the Center, presents the first DVD in a series on farms that have been in the same family for at least 100 years. "Memories and Music on the McDonald Craig Farm" features a Perry County farm founded by ex-slaves and owned today by their descendent, McDonald Craig, who is also a well-known composer and performer. Caneta Hankins, director of the Tennessee Century Farms program, scripted the DVD which was produced by MTSU Audio-Visual Services in a partnership with the Tennessee Civil War National Heritage Area, a unit of the National Park Service administered by the Center.

The *Tennessee Iron Furnace Trail: a Guide to Resources on the Western Highland Rim* and accompanying DVD are products of research focusing on the extant resources of the nineteenth century iron industry in twelve counties. Michael T. Gavin and Caneta S. Hankins authored and produced these pieces. The DVD was made in cooperation with MTSU Audio-Visual Services.

Also display will be poster boards explaining the Library of Congress Teaching with Primary Sources across Tennessee program that the Center administers. Organizations across the state as well as a number of MTSU departments are involved in this three-year program promoting the interdisciplinary use of the digitized resources of the Library of Congress.

<http://161.45.214.7/histpres/>

## Concrete: The Sustainable Building Option

Director: Heather Brown

Concrete offers many options in achieving a sustainable design. The students in the MTSU Concrete Industry Management Program research many different materials that offer longer service life, use of local materials, a smaller carbon footprint and environmental benefits. The materials showcased here are currently being researched for sustainable and economical advantages to better serve the building industry. All of the research is supported by the CIM Patrons and the concrete industry.

<http://www.mtsucim.com/>

## The Master of Science in Professional Science (MS-PS) Degree Program

Director: Dr. Saeed D. Foroudastan

The Master of Science in Professional Science (MS-PS) degree program at Middle Tennessee State University (MTSU) is an interdisciplinary graduate program that integrates business and science curriculum to prepare students for a professional career in a scientific industry. The MS-PS curriculum is specifically designed to fulfill the needs of industry, and offers a core of business classes combined with science classes respective to each of the three concentrations: Biostatistics, Biotechnology, and Health Care Informatics. The integration of these disciplines enables graduates to perform dual functions within a single job position. By being able to analyze, understand, and present scientific data in a business setting, the MS-PS graduate provides a valuable asset to the professional scientific industry.

One requirement of the MS-PS program which polishes the student's professional skills is a 250-hour internship. In addition to the individual assignments of the industry, students must compile a portfolio and give a professional presentation of their experience at the company. Students also perform graduate research at MTSU under the supervision of faculty. These students often compile their experimental procedures and results into poster presentations. MS-PS students in both the Biotechnology and Biostatistics concentrations will present their research and experiences at MTSU's 2009 Scholar's Day.

<http://frank.mtsu.edu/~msps/>

## Tennessee Mathematics, Science, Technology Education Center

Director: Rick Vanosdall  
Associate Director: Dovie Kimmins  
Technical Coordinator: Pat Govan

TMSTEC, an official Tennessee STEM Center, was established in 2002 with initial funding from NASA. The vision of the Center is that *Tennessee will develop programs of distinction in mathematics, science and technology for all K-16 students that will encourage participation and success at students' full potential.* The vision is accomplished through collaborative partnerships among business, industry, education and policymakers focusing on activities related to the following goals.

- Developing and providing quality professional development for teachers of math and science, particularly in the effective use of technology in teaching and learning.
- Inspiring and motivating students to study and learn more mathematics and science.
- Influencing state policies related to mathematics, science and technology education.
- Encouraging and promoting the development of undergraduate and graduate programs of excellence in mathematics and science education.
- Promoting and facilitating scholarly research on the teaching/learning of mathematics and science.
- Encouraging and facilitating more collaboration among business, industry, education and state policymakers to ensure a skilled, capable future workforce.

Significant progress in each of these areas occurred in 2007. Noteworthy efforts include:

- Two hundred seventy five teachers from 145 schools statewide participated in sustained quality professional development in mathematics and science. These efforts were funded by \$1.6 million in competitive dollars.
- Approximately 75 math and science educators statewide collaborated in the inaugural Math and Science Education Research Conference. Nationally known presenters included Representative Bart Gordon, Dr Camilla Benbow (Vanderbilt University), Dr Jim Lewis (University of Nebraska), Dr. Bob Yeagar (University of Iowa), and Dr Leigh Abts (University of Maryland).
- TMSTEC staff collaborated with individuals from the Oak Ridge Associated Universities, Office of Governor Bredesen, STEM Centers at TTU and ETSU, the Tennessee Department of Education, and the Tennessee Board of Education in the development of competitive proposals.
- Administered a \$1 million state-wide Math Science Partnership Grant (partners included University of Memphis, University of Tennessee-Knoxville, Oak Ridge National Labs, Oak Ridge Institute for Science Education, College Board, and numerous school districts statewide). This project includes a rigorous research component.

- Contributed to state math and science education policy through participation in the P-16 Mathematics Curriculum Alignment Committee, Mathematics Standards Curriculum Revision Committees, TBR Teacher Quality Initiative, and TN Department of Education discussions to increase number of math and science graduates successfully obtaining state teacher licensure.

<http://www.mtsu.edu/tmstec>

## *MTSU Interdisciplinary Microanalysis and Imaging Center*

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The MTSU Interdisciplinary Microanalysis and Imaging Center (MIMIC) is a core facility for microscopy and other characterization equipment that is centrally located in the Forrest Hall Annex and housed administratively in the College of Basic and Applied Sciences. This shared resource for research in structural biology and materials has been fully operational since 2006. The Center is run on a fee-for-usage basis and a full-time Technical Manager are associated with the facility. An Advisory Board reviews and approves policy and procedures for Center operation. In this presentation, information about MIMIC, as well as images from recent projects and coursework will be provided.

**<http://frank.mtsu.edu/~mimic/>**

## The Forensic Institute for Research and Education (FIRE) and Student Interaction

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Tyler LeJeune (undergraduate)

Laurisa Spears (undergraduate)

The Forensic Institute for Research and Education (FIRE) is strongly student oriented and actively provides experience for student in various aspects of forensic science including crime scenes, research, presentation at national meetings, and opportunities to meet internationally known forensic legends. FIRE sponsors CSI-MTSU, a four-day summer camp for high school students, with the purpose of stimulating student interest in math and science through the use of a simulated crime scene. The Forensic Anthropology Search and Recover Team (FASR Team)—an elite team of 10 MTSU students—uses their training in skeletal crime scene recovery and the guidance of forensic anthropologist Hugh Berryman to work actual crime scenes involving human skeletal remains. They also assist in the analysis of those remains at the State Medical Examiner's Office in Nashville. Students from a variety of majors (e.g., anthropology, biology, chemistry, criminal justice, etc.) are involved in forensic research with the goal of presenting at the American Academy of Forensic Sciences (an internationally attended meeting) and publishing in the *Journal of Forensic Science* (an internationally recognized referred publication). One research project was received the Ellis R. Kerley Award and was later funded through a Lucas Grant. In addition, FIRE's Legends in Forensic Science Lectureship provides the opportunity for MTSU students to meet internationally known forensic scientists and get to know them in an informal setting.

## Center for Popular Music

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The Center for Popular Music is an archive and research center devoted to the study of American popular music from the pre-revolutionary era to the present. It was established in 1985 as one of the sixteen Centers of Excellence at universities in the Tennessee Board of Regents system. The Center's mission is to promote research and scholarship in American vernacular music, and to foster an understanding and appreciation of America's diverse musical culture. To carry out this mission, the Center:

- maintains a large research library and archive;
- presents public programs that interpret various aspects of American vernacular music;
- engages in original research projects;
- disseminates the results of research via publications in various media.

In addition to being heavily used by MTSU students and faculty in many departments and schools, including Music, Recording Industry, English, and History, the Center's resources are utilized by scholars across the U.S. and in Europe, Asia, Australia, and Africa.

<http://popmusic.mtsu.edu/>

## MTSU Center for Environmental Education and Center for Cedar Glade Studies

Kim Cleary Sadler (faculty, director CCGS), Biology;  
 Padgett Kelly (faculty, director EEC), Biology;  
 Cindi Smith-Walters (faculty, director EEC), Biology;  
 Cynthia Allen (staff/administration) Biology;  
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<http://mtsu.edu/~mtsucee/>  
<http://mtsu.edu/~gladectr>

The MTSU Center for Environment Education (CEE) has over 30 years of history in teacher/youth leader training in quality environmental education, curriculum, and responsible practices, most funded with external funds. Since 1991, nearly half a million people have participated in classroom presentations, training sessions, teleconferences, and seminars. The center partners with STEM-ED organizations on- and off-campus. A number of unique biology outreach programs and opportunities are housed under the umbrella of the center as workshops, after school programs, distance learning, and professional training.

**Center for Cedar Glades Studies (CCGS)**—Provides research opportunities on the ecology of glades, increases educator knowledge and skills about glades, acts as a clearinghouse to

provide information on glades to the public, and creates a network of organizations to identify research and outreach needs for glades.

**TAMP (TN Amphibian Monitoring Program)**—A joint effort between TN Wildlife Resources Agency and the MTSU CEE Frog and toad populations are monitored by “frog loggers,” who volunteer their time to travel prescribed routes and estimate populations using vocalizations. The information they send to the CEE is entered in a database and shared with the national AMP.

**WaterWorks!/Oil Disposal Program**—An award-winning, statewide public education and outreach program to promote individual responsibility through “easy-to-learn and do” habits and to spread the message through public service announcements, brochures, surveys, educational videos, and a Web site with an interactive watershed map of the state and related activities.

**Tools for Schools**—A wide variety of teaching materials and equipment is available for checkout.

**Onsite marine education (Biome Analysis in the Florida Keys)**—Using masks and fins, teachers explore coral reef communities in Key Largo and Key West. A traveling life-sized model of a humpback whale allows schoolchildren to experience marine animals without leaving the classroom.

## TN Lead Elimination Program

Directors: Drs. Kathy Mathis and Carol Boraiko  
Coordinator: Leigh Woodcock (866)-686-5327

Middle Tennessee State University through the Department of Engineering Technology and Industrial Studies is the recipient of a 2006 U.S. Housing and Urban Development (HUD) Office of Healthy Homes and Lead Hazard Control grant award that was renewed this year. These awards provide funding to identify and control lead based paint hazards associated with private residential housing to prevent the poisoning of children less than six years of age. Control of lead paint hazards may include stabilization of peeling and chipping paint, replacement of windows that generate lead dust when opened or closed, and soil abatement of contaminated soil containing lead particles. The 2000 Housing Census tells us over 1.3M homes in Tennessee may contain lead based paint hazards with potential to harm occupants. TN LEAP has programs available to assist Tennessee homeowners and landlords with the identification and removal of lead hazards in homes built before 1978.

<http://mtsu.edu/~tnleap>

## College of Graduate Studies

Michael Allen (Dean)

Peter Cunningham (Associate Dean)

Director of Graduate Admissions: Rick Henegar [jhenegar@mtsu.edu](mailto:jhenegar@mtsu.edu), 615-494-7630

The College of Graduate Studies provides academic and other support services, including administration of graduate assistantships and scholarships for graduate students while upholding academic standards. The college also serves as the central collegiate component for uniting the entire graduate academic community at Middle Tennessee State University. In consultation with the graduate faculty, the college establishes policies and procedures to promote excellence in graduate education. These include processes to ensure judicious and selective graduate student admission decisions, rigorous adherence to the academic standards expected of graduate students, monitoring for excellence in graduate program curricula through the graduate program review process, and selectivity in making graduate faculty appointments. The college certifies that every candidate for conferral of a graduate degree has fulfilled all academic requirements. The college contributes assistance to help ensure that each graduate program provides the optimal educational experiences for its graduate students. This support includes the distribution of graduate assistant funds and the provision of graduate fellowships.

<http://frank.mtsu.edu/~graduate/>

## CENTER FOR ORGANIZATIONAL AND HUMAN RESOURCE EFFECTIVENESS (COHRE)

Michael Hein (faculty, associate director), Psychology,  
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director), Psychology

The success of MTSU's Center for Organizational and Human Resource Effectiveness (COHRE) is an example of the synergy that comes from leveraging programmatic strengths to address needs and build partnerships. COHRE has created a model for partnerships that work by bringing faculty, graduate students, and adjunct consultants together to help organizations meet their human resource and organizational development needs. Students gain active learning experience; faculty members develop personal research programs; and the community is served. COHRE received initial funds from the University in 2004 and plans to be completely self-funded by 2010.

Since its inception, COHRE has developed student-centered partnerships with organizations which provide opportunities for MTSU to advance and facilitate the consulting and research efforts of the Industrial/Organizational (I/O) Psychology program, build on the students' applied learning experiences, and help the I/O Psychology program achieve academic excellence. Partnerships include Smith, Seckman, and Reid; Community Health Systems; Rutherford County Government; Tennessee Center for Child Welfare, and a number of MTSU departments and State Farm Insurance leadership groups.

