



Undergraduate Research Center

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Special points of interest:

- URECA Summer-Paydates: 6/25 and 8/6
- Summer Internships: http://www.mtsu.edu/urc/ResearchOpportunities_urc.shtml
- Next URECA Proposal Deadline: Tues, 10/5/2010

URS SCENE

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MIDDLE
TENNESSEE
STATE UNIVERSITY

STEP^{MT} Stepping Down After 6 Successful Years



“STEP^{MT} Up Undergraduate Research at MTSU” (STEP^{MT}) is winding down after six years of supporting undergraduate research at MTSU. The College of Basic and Applied Sciences ran the National Science Foundation grant for its science, technology, engineering, and mathematics (STEM) majors to improve graduation and retention in the STEM disciplines. In all, more than 211 students mentored by 67 faculty members completed 246 academic year projects. Collectively, those students received \$215,500 to carry out individual research projects as either the lead researcher or the assistant researcher. Lead researchers received stipends of \$1000 while assistant researchers received \$500. Faculty mentoring lead researchers also received \$500 for a total faculty stipend of \$92,000. STEP^{MT} academic year research projects were well patronized, averaging 20 projects per semester for the six year grant period.

Summer Teams were another key activity for the STEP^{MT} project. Every summer team worked for eight weeks during the summer to complete a rigorous research project. STEP^{MT} has funded 27 different teams, with 54 MTSU undergraduates, 12 undergraduates from partner universities including TSU, University of Memphis, and SUNO, 25 high school teachers, and 26 high school students from Rutherford County High Schools. In addition, STEP^{MT} has shared funding of 25 different summer internships with 14 different companies, providing students industry experience with research. All in all, STEP^{MT} has funded \$590,000 of summer research activities.

STEP^{MT} has also impacted curriculum by sponsoring faculty development of discovery learning projects. At least ten projects to create or modify hands on learning techniques and apply them to the introductory courses in STEM disciplines were carried out during the tenure of the grant.

STEP^{MT} has dramatically impacted the undergraduate research environment at MTSU encouraging students to participate in research both individually and in groups, in both the academic and the corporate setting. Our thanks to all faculty, students, and staff who participated and made this project great.

-Megan Hall, Step^{MT} Coordinator

URECA Committee Awards over \$55,000 to Undergraduate Assistants and Scholars for Summer/Fall 2010

The Undergraduate Research Experience and Creative Activity Committee (URECA) awarded \$55,295 last April to students who applied to pursue research or creative activity in their field of interest. This amount was awarded in stipends, supplies and travel to 21 students who applied to either be an assistant or a scholar. The 10 students funded at the assistant level will contribute to a faculty member's project, and the 11 students funded at the scholar level will take more ownership of their project while collaborating with one or more faculty members. The committee received 32 proposals to review, with the majority, 15, coming from the College of Liberal Arts; students from the College of Basic and Applied Sciences submitted 12 proposals; the College of Education and Behavioral Science contributed 4, and the College of Mass Communication, 1.

For a list of recipients, please visit: http://www.mtsu.edu/urc/ursca_urc.shtml

Students Represent MTSU at Local, State and National Levels

Spring Semester gives our undergraduates two opportunities to meet with our legislators and let them know what students are researching at MTSU. And also every Spring we host our own *Scholars Week*.

Feb 3,
2010



The Posters at the Capitol exhibition this year in Nashville

was a great success, taking students from four different disciplines to spend the day at the state capitol. Delegates this year were: Sade Dunn and Shannon Murphy from Biology; Luke Bolin and Bart Morris from Chemistry; Keaten Holley and Hannah Norris from Physics; and Kevin Bonds from Aerospace. For more information visit:

http://www.mtsu.edu/urc/posters_urc.shtml

Posters at the Capitol, Nashville, TN

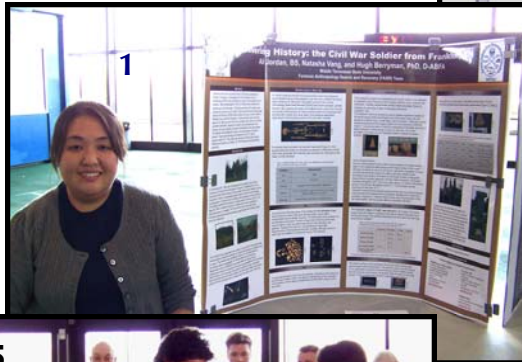
L to R: Hannah Norris, Shannon Murphy, and Luke Bolin meet with Senator Jim Tracy in his office at the State Capitol.



March
22-26,
2010

Scholars Week

MTSU
Murphy
Center



Clockwise: 1. Natasha Vang and 2. Gage Myers answer questions about their research. 3. College of Business Dean James Burton addresses the crowd.



5. Interim Provost Dr. Dianne Miller presents award to a winning student. 4. Keaten Holley presents his poster

Posters on the Hill, Washington DC



MIDDLE TENNESSEE STATE UNIVERSITY
IS AN INSTITUTIONAL MEMBER OF THE
COUNCIL ON UNDERGRADUATE RESEARCH
Learning Through Research



LEFT MTSU delegates Shannon Murphy (L) and Merranda Holmes (R) meet with Tennessee Representative Bart Gordon in his office in Washington, D.C..

BELOW Shannon and Merranda present their research titled, "Detection and Differentiation of *Bacillus anthracis*-Simulating Endospores: Endospore Production and Analysis Using an Optical Biosensor"



The National competition, **Posters on the Hill** in Washington, DC, chooses two teams per state. Every year for the last four years, the state team has been from MTSU. Shannon and Merranda graduated from MTSU in May and each will attend medical school in the fall.

RIGHT Joining Shannon and Merranda (center) for a photo op at a Capitol Hill breakfast, **L to R:** MTSU Biology Professor and student mentor, Dr. Stephen Wright; TN Senator Lamar Alexander; Mrs. Kim Murphy; and TN Senator Bob Corker



April
13-14,
2010

"Our MTSU delegates had the opportunity to thank the Legislators for their support for research funding and also reiterate MTSU's need for science facilities."

-Dr. Stephen Wright

URSCA—Undergraduate Research, Scholarship, and Creative Activity is now

URECA - Undergraduate Research Experience and Creative Activity

“My experiences this semester have opened several doors for my future.”



Benjamin Golden

What's Next?

During the spring of 2010, Senior music major Benjamin Golden, with the support of a Spring URECA award, competed in three classical guitar competitions: the Columbus State University competition, the Beethoven Young Artist competition in Memphis, and the Appalachian State University competition. At each competition he got to play for some exceptional players in his field., winning 2nd prize at the Beethoven Club competition in Memphis.

Benjamin shared, “ Because of the URECA scholar grant I received, I was able to put in a lot of practice time and subsequently I received a GTA position and full scholarship to the University of Denver to pursue my masters of music performance degree. My experiences this semester have opened several doors for my future. “

Southeastern Psychological Association Annual Meeting

Chattanooga, TN March 13, 2010

Psychology major, Lanjericha Finch (L), traveled to Chattanooga last March to present her research titled, *Effect of Teacher Attractiveness on Perceptions of Teacher/Student Sexual Involvement* at the annual conference of the Southeastern Psychological Association (SEPA). This was Lanjericha's first professional conference and she left very impressed by the entire experience:



“I was able to converse with many others in my field about their particular areas of study and I found out many unexpected results from various studies. I also found out about the possible finding of Little Albert. While I was skeptical, it was very interesting to find out about the whole process of attempting to find him. It was a very enjoyable experience and one I am so glad I had before going to graduate school.” Pictured with Lanjericha is MTSU graduate student and fellow presenter, Amy Wilson.

“I was able to converse with many others in my field about their particular areas of study”

INTERESTED IN FORENSICS?

MTSU's Forensic Institute for Research and Education (FIRE) is looking for 6 students to fill paid research positions. They are seeking applications now. For more information, contact Karen Austin at kaustin@mtsu.edu

