Scholars Week 2024 is Here!

On March 15th, we will celebrate MTSU’s biggest undergraduate research event of the year - Scholars Week! Take a minute to familiarize yourself with the Research and Creative Activity (RCA) Expo schedule of events (page 3). Also, consider volunteering at SW (page 4) or attending one of the many college-based expositions (pages 5-9).

Next up, the Summer URECA application deadline is April 4th (page 10). Join us in congratulating our Spring URECA Scholars (pages 12-14).

Want to play an integral role in undergraduate research on campus? Consider applying for a SOAR Officer or Ambassador position (page 15). We also want to hear your thoughts on a Spring Social event (page 16). Speaking of SOAR, check out some of our fantastic scholars that presented at the Posters at the Capitol Event on Valentine’s Day (page 19).

Last but not least, check out the upcoming Library Research Workshops (page 20) and some undergraduate research pro tips from Dr. Karen Nourse (page 21).

I cannot wait to celebrate this month’s activities with you all!

Until next time,
Ross Sibley, Editor
(rhs2x@mtmail.mtsu.edu)
THE URC TEAM

YOU, our students and faculty, are our #1 priority. We are here to help however possible, whether it is getting you involved in undergraduate research, helping you find a faculty mentor, thinking through a research or creative activity project, hosting a workshop on a topic of need, or facilitating events. Meet our team!

Dr. Jamie Burriss

Dr. Burriss oversees the URC, the Student Organization for the Advancement of Research (SOAR), SOAR Ambassadors, the URECA grant program, communications, Scholars Week, Posters at the Capitol, and all other activities related to the URC.

Prior to returning to MTSU, Dr. Burriss served as the Curriculum Administrator for the SELECT MD Program at the University of South Florida while pursuing her doctorate. After USF, she accepted a position at Vanderbilt University as the Assessment Analyst for the College of Medicine. But, her heart has always been TRUE BLUE and she is happy to once again serve her undergraduate alma mater.

Channon Fults

Program Assistant

Channon was born and raised in Murfreesboro, TN. She graduated MTSU in 2006 with a Bachelor’s degree in Interior Design and a minor in Human Sciences. Between working part time with the URC program and being a Mom she continues to pursue her interior design career as well. She is excited to be joining the URC team and is eager to be a part of helping enhance student education at her alma mater.

Sophia Roberts

Major: Sociology

URC Involvement: Research Assistant

Fun Fact: Sophia graduated in December 2023 with the Scholar Distinction in Undergraduate Research.

Ross Sibley

Major: Biochemistry

SOAR Involvement: President, Communications & Social Media Ambassador

Fun Fact: Ross was funded to present his research in the UK at the World Congress on Undergraduate Research.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-11:30 AM</td>
<td>POSTER SESSION #1</td>
<td>Donuts &amp; Coffee</td>
</tr>
<tr>
<td>11:30-12:30 PM</td>
<td>LUNCH &amp; HALF-TIME SHOW #1</td>
<td>Italian Buffet</td>
</tr>
<tr>
<td>12:30-2:00 PM</td>
<td>POSTER SESSION #2</td>
<td>Research &amp; Creative Projects</td>
</tr>
<tr>
<td>2:00-2:30 PM</td>
<td>HALF-TIME SHOW #2</td>
<td>Donut Country</td>
</tr>
<tr>
<td>2:30-3:00 PM</td>
<td>AWARDS CEREMONY</td>
<td>Presented by the College Deans</td>
</tr>
</tbody>
</table>

Student Union Ballroom

www.mtsu.edu/scholarsweek

Scholarship Research Creative Activity
SCHOLARS WEEK
2024 SCHEDULE

Tuesday March 12th
CBAS, COE & CME Day

Wednesday March 13th
CLA Scholars Day

Thursday March 14th
CBHS Expo

Friday March 15th
University-Wide RCA Expo

RCA Expo Volunteers Needed!

Scan QR Code or Click Here to Sign Up
Schedule of Events
Tuesday, March 12th

Poster Competition
Science Building Lobby and Atrium
10:15am - 12:45pm
- Poster Session A: 10:15 - 11:30am
- Poster Session B: 11:30 - 12:45pm

Keynote Address
School of Concrete and Construction Management (SCCM 105)
1:00 - 2:00pm

Dr. Aaron Bender
Assistant Director of Medicinal Chemistry
Warner Center for Neuroscience Drug Discovery

“New Opportunities for Serotonergic Drug Discovery”

Poster Competition Awards
School of Concrete and Construction Management (SCCM 105)
2:00 - 2:30pm
The Women of True Grit event is designed to celebrate and empower women of all ages. The event, which is part of MTSU’s National Women’s History Month celebration, was inspired by the book Edie Hand’s *Women of True Grit*, which profiles more than 60 women who navigated with grit to transform their lives and those of the people around them. This event features several of the women profiled in her project.

**MARCH 12TH AT 1PM - 5PM | TUCKER THEATRE**

**FREE & OPEN TO THE PUBLIC**

**CLICK HERE FOR MORE INFORMATION**

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SAVE THE DATE!

COE SCHOLARS WEEK 2024

COE Poster Presentations:
Tuesday March 12, 2024

Event Schedule
4:45 PM COE Atrium: Social Hour
5:30 PM COE 164: Speaker COE Dean Neporcha Cone
5:45-7:00 PM COE Atrium: Student Poster Presentations and Judging

Award Categories:
COE Master’s Student Research
COE Doctoral Student Research
COE Graduate Student Innovation or Creative Project
COE Undergraduate Student Innovative or Creative Project

COE SCHOLARS WEEK COMMITTEE MEMBERS:
JIM ROST, BONNIE BARKSDALE, JOAN BOULWARE, NATALIE GRIFFIN,
HOLLY HEBERT, ANGELA HOOSER
Congratulations Sophia Roberts & thank you to everyone who voted!
College of Behavioral and Health Sciences Expo

Join us in highlighting the research and activities of CBHS students! Scavenger hunt with prizes!

March 14th
ACB Atrium
11 am - 2 pm

Students! To register to present your research/designs or have your organization host a table, email Hannah hea3j@mtmail.mst.edu by March 3rd.
SUMMER URECA GRANTS

APPLICATION DEADLINE: APRIL 4TH, 2024 BY 4:30PM

Want to get paid to do research or work on a creative project?

Then check out our Undergraduate Research and Creative Activity Grants

To support our vision of nurturing a culture of research and creative activity at MTSU, the URC offers Undergraduate Research Experience and Creative Activity (URECA) grants to students three times a year. Awards range from $500 for beginners to $3,500 for experienced researchers.

Team applications are now being offered during the fall, spring, and summer semester. More information about the team structure can be found here.

To learn more about URECA grants and how to submit proposals, check out our website.

NEW!! Need assistance finding a mentoring or figuring out which level grant is best for you? Contact our Peer Mentor Scholar, Emilie Conners, at emc5w@mtmail.mtsu.edu. Emilie can also help with proposal development, budget and justification, creating a timeline, and proposal review.

STUDENTS MAY APPLY FOR THE FOLLOWING LEVELS:

Assistant - beginners, one semester project, $500 stipend

Silver Scholar - experienced student researcher, one semester project, $1000 stipend

Gold Level - experienced student researcher, 2 semester project (fall & spring), $2,400 stipend

Team - All levels
I'M HERE TO HELP YOU...

GET INVOLVED IN UNDERGRAD RESEARCH
APPLY FOR A URECA GRANT
FEEL CONFIDENT ABOUT IT!

OFFICE HOURS
EVERY MONDAY
3-4 PM

REACH OUT TO ME (EMILIE CONNERS)
AT EMC5W@MTMAIL.MTSU.EDU
ASSISTANT AWARDS

Jocelyn Brandsford - Accelerating Discovery through Automation: High-Throughput Data Pipelines for Drosophila Activity Assays; Faculty Mentor: Kiel Ormerod, Biology

Emily Callison - Exploring the use of fetal liver-derived alveolar-like macrophages (FLAMs) as an in vitro model for C. neoformans infection of the lung; Faculty Mentor: David Nelson, Biology

Morgen Clay - Investigating Impact of Policy on Teaching; Faculty Mentor: Janna McClain, Elementary Education

Sierra Cruz - Spectroscopy and Fluorescence Analysis of Neuroblastoma Cells in a Laser Trap with Magnetic Beads; Faculty Mentor: Daniel Erenso, Physics

Andrew England - Assessment of fetal liver-derived alveolar-like macrophages (FLAMs) as a model for the study of C. neoformans respiratory infections; Faculty Mentor: David Nelson, Biology

Chance Hall - From Blood to Mini-Sun: Analyzing Plasma Duration from the Ionization of Turkey Blood Sample; Faculty Mentor: Daniel Erenso, Physics

Jessica Hayes - A half already whole; Faculty Mentor: Nicholas Satinover, Art

Sevinch Kamaridinova - Targeted RNA interference Screen to Identify Novel Modifiers of Huntington’s Disease impact on adult viability in Drosophila; Faculty Mentor: Kiel Ormerod, Biology

Andrew Nicholson - Study of Fault-tolerant Detection Systems; Faculty Mentor: Suk Seo, Computer Science

Isaac Puckett - Exploration of Sensitivity of Amides and Amines to Polarity and Protic Character in Fluorescence; Faculty Mentor: Scott Handy, Chemistry

Donald Rogers - Novel Use of a Sustainable, Perennial Sorghum Hybrid for Tennessee Whiskey; Faculty Mentor: Keely O’Brien, Agriculture

Deep Shah - Develop a Neural Network Model for Predicting Traffic Flow Patterns in Urban Areas Using Historical Traffic Data and Satellite Imagery; Faculty Mentor: Arpan Sainju, Computer Science

Zakaria Sohrabi Sedeh - Machine Learning Approaches for Brain Imaging Analysis; Faculty Mentor: Ramchandra Rimal, Physics

Aubrey Tidwell - Ionization and Radiation in Neuroblastoma Cancer Cells; Faculty Mentor: Daniel Erenso, Physics

Edwin Walck - Natural and anthropogenic ecosystem loss following establishment of Percy Priest Lake; Faculty Member: Jeremy Aber, Geoscience

Amber Washington - Imaging mutagenized Drosophila genetically engineered with a fluorescently tagged neuropeptide to identify novel proteins involved in dense core vesicle biology; Faculty Member: Kiel Ormerod, Biology
SILVER AWARDS

Rosemary Gutierrez - Electromagnetic Ionization and Radiation Creation in Neuroblastoma Cancer Cells
Faculty Mentor: Daniel Erenso, Physics

Andrew Hetrick - Investigation into the use of Biotechnology for the detection of Microcystin producing cyanobacteria
Faculty Mentor: Frank Bailey, Biology

Veronika Mousa - Venturing the Enigma of Neuropeptide Colocalization within Dense Core Vesicles (DCVs)
Faculty Mentor: Kiel Ormerod, Biology

Ryan Wiles - Photographic Exploration into Gender Performance
Faculty Mentor: Kristine Potter, EMC

GOLD AWARDS

Shaun Burgess - The effect of pain on attention and working memory measured via human behavior and neurophysiology
Faculty Mentor: James Houston, Psychology

Rand Hasan - Synthesis and Evaluation of Polyaspartate Peptoid Polymers
Faculty Mentor: Kevin Bicker, Chemistry

Garrett McNeil - Validation of a Low-Cost Mobile EEG Device to Increase Diversity, Participation, and opportunity in the field of EEG
Faculty Mentor: Cyrille Magne, Psychology

Allison Throm - Interplay Between Pain, Age, and Cognition "Visual Search and N-Back Tasks"
Faculty Mentor: James Houston, Biology

Weston Williams - Kefir Grain Extraction and Recovery of Residual Grains Suspended in Milk and Whey Mediums
Faculty Mentor: Keely O'Brien, Agriculture
TEAM AWARDS

Danielly Aguirre, Sharon Bessant, Brooke Lafferty and Marissa Pickett - A Mineralogical and Geochemical Study of Ore-Metal Formation Within and Near the Tennessee Copper Basin; Faculty Mentor: Warner Cribb, Geosciences

Lindsey Tran, Shelby Mayhut, Stephen Marking and Emily Olson - Revolutionizing Energy Harvesting: Creating Artificial Stars from Livestock Blood for Clean Energy; Faculty Mentor: Daniel Erenso, College and Basic Applied Sciences

Brittany Eidenmiller, Karsen Gray, Heather Sandefur and Brynlee Wolfe - Editing Elizabeth Meeke’s The Abbey of Clugny (1795); Faculty Mentor: Bridget Donnelly, English

Courtney Exantus and Taylor Roark - Finding our way: The impact of peer-tutoring on undergraduate SLPA majors’ academic success; Faculty Mentor: Karen Davis, Health and Human Performance

Emma Ankar and Ashley Landaverde - Digital Voice Assistants as Gendered Recommendation Agents in the Online Shopping; Faculty Mentor: Gaia Rancati, Marketing

Jarrett Gentry, Savanna Snyder and Sandy Hana - Analysis of Environmental Contaminants near the Middle Point Landfill; Faculty Mentor: Ngee Chong, Chemistry

Olivia Cullison, Grace Haley, Cora McDuffee and Emely Martinez - Dark Botanicals Public Facing Mural in Franklin, Kentucky Faculty Mentor: Kate Kinder, Art and Design

Malak Abdelrahman and Fabiola Vasquez - Examining the Interaction Effects of Oxytocin and Antibiotics on Social Behavior in Mice; Faculty Mentor: Tiffany Rogers, Psychology

Thank You to our 2023-24 URECA Committee

Tricia Farwell, Chair, Journalism
Tiffany Rogers, Psychology
Justin Miller, Chemistry
Sean Foley, History
Keely O'Brien, Agriculture
Yixiang Wu, Mathematics
Kim Evert, Educational Leadership
Yi (Vanessa) Liu, Health and Human Performance
Bridget Donnelly, English
Student Organization for the Advancement of Research

SOAR
LEADERSHIP POSITIONS
2024-2025

AMBASSADOR POSITIONS:
SOCIAL MEDIA & COMMUNICATIONS
READY TO SOAR COORDINATOR
PEER MENTOR SCHOLAR
SCHOLARS WEEK CHAIR
URC RESEARCH ASSISTANT

$$ ALL AMBASSADORS RECEIVE
A SEMESTERLY STIPEND $$$

OFFICER POSITIONS:
PRESIDENT
VICE PRESIDENT
SECRETARY
TREASURER

TAKE CHARGE OF AN INCREDIBLE STUDENT ORG!

AMBASSADOR APPLICATION
OFFICER APPLICATION

DEADLINE TO APPLY: MARCH 15TH, 2024

*YOU CAN APPLY FOR MULTIPLE POSITIONS*

from our Summer Retreat

URC News | Page 15
HEY SOAR!
WE WANT
YOUR INPUT
FOR A
SPRING SOCIAL!

[QR Code]
SOAR is our awesome student organization compromised of undergraduate students who are committed to developing and sustaining an active and successful undergraduate research environment at MTSU.

SOAR's Mission
To enhance student’s research capacity through increased awareness, collaboration and skill building.

Why Join?
- SOAR will enhance a student’s research capacity through increased awareness, collaboration and skill building by offering workshops and trainings to fulfill the needs of undergraduate researchers.
- SOAR will assist students in the preparation of poster presentations and development of abstracts to increase conference presence on a national level, encourage students to attend the National Conference on Undergraduate Research, and facilitate travel preparations.
- SOAR will provide peer mentoring to students new to undergraduate research.
SPRING BUSINESS MEETING

Thank you to everyone who came to our Spring Business Meeting and Luncheon! If you missed it, click here to view the presentation from the meeting!

URC STUDENT TABLING

Thank you to everyone who volunteered to table for Scholars Week and the Honors College Open House!
Posters at the Capitol
February 14th, 2024

POSTERS AT THE CAPITOL
Posters at the Capitol is an annual event where undergraduate students from across the state of Tennessee have the opportunity to present STEM research to Tennessee legislators. The goal of this event is to expose legislators to undergraduate researchers and to expose undergraduates to their legislators. MTSU, in addition to six other universities, sent students to present their research projects.

PRESENTERS
Pictured below from left to right: Eden Anderson, Linsdey Tran, Rosemary Gutierrez, Ariel Nicastro, Sydney Robbins, Tori Bascou, Audrey Lauerhass, Cole Huddleston, and Isiah Kam

RECAP VIDEO

BY SOPHIA ROBERTS
LIBRARY RESEARCH WORKSHOP

SPRING 2024 SERIES

CONSIDERATIONS FOR PUBLISHING YOUR THESIS OR DISSERTATION

MAR 19
11:00-11:30am in LIB 264A

ESTABLISHING YOUR RESEARCHER PRESENCE THROUGH SOCIAL MEDIA

APR 17
12:00-1:00pm in LIB 264A - LUNCH PROVIDED!

MTSU PUBLISHING WEBINAR

“FUNDAMENTALS OF CRAFTING A SCIENTIFIC ARTICLE”
MARCH 20TH, 10:00-11:00AM

Webinar Overview
- Explore the fundamental components of a scientific article, the role of journal editors, reviewers and publishers, and practical tips for crafting an article

Register Here
Pro Tips for Getting Involved in Research

I hear from students all the time who recognize the importance of getting research experience while undergrads: perhaps they want to go to grad school immediately after getting their bachelor’s degrees, or maybe they see it as an important way to distinguish themselves in the job market. Motivation for research is never the problem, but getting started is! The big question to me is often: how do I decide on a topic to research? Today I would like to give you the following tips:

**Choose a Research Topic You Care About**
Yes that sounds really obvious, but I have seen students pick topics that they think someone else will care about rather than choosing what is aligned with their own interests. Don’t pick a research topic based on perceived prestige or because it is your professor’s pet research interest – unless of course this topic lines up with your own academic interests. That’s because…

**Research is a Marathon, Not a Sprint**
If you come into a marathon ill-prepared for endurance (perhaps dehydrated or out of shape), you’re probably not going to finish… research is similar. You have to come into a research project mentally prepared to persist through the time, effort, and obstacles required to make it to the finish line. And as with any great task you embark upon in life, it is best to…

**Come Prepared**
Have adequate background training/knowledge in your discipline so that you can formulate ideas on possible topics that are interesting but not oversaturated in the field. Do a preliminary search in the Walker Library databases to see what research currently exists on your proposed topic. And lastly…

**Consider Your Resources**
Have you taken a class with a professor who could possibly work with you on your proposed topic of research? Would your proposed topic require specialized equipment? Who could procure it for you or get you access? You don’t have to have the answers to all of these questions yet, but these are just some factors to consider in deciding on the scope of your research topic.
Distinction in Undergraduate Research
*Students must fulfill all requirements

1. Successful completion of an Assistant level URECA project - 50 hours of research or more.
2. Poster presentation or creative performance at one of the URC’s signature events: Fall Open House, Scholars Week, or Summer Research Celebration.
3. Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
4. Confirmation of support from URECA faculty mentor.

Scholar Distinction in Undergraduate Research
*Students must fulfill all requirements

1. Successful completion of a Scholar level URECA project - 100 hours of research or more.
2. Poster presentation or creative performance at one of the URC’s signature events: Fall Open House, Scholars Week, or Summer Research Celebration.
3. Active participation for at least one academic year in the Student Organization for the Advancement of Research (SOAR).
4. Poster or presentation at the National Conference on Undergraduate Research or published in a peer-reviewed academic journal.
5. Confirmation of support from URECA faculty mentor.

LEVELS OF RECOGNITION:
Distinction in Undergraduate Research
- Students receive a dark blue, light blue, and white cord

Scholar Distinction in Undergraduate Research
- Students receive a dark blue, light blue and white cord AND a medallion (see image to the right)
The URC's guide for upcoming student researchers, Research Guide: How to Start your Student Research Journey, is a great resource for undergraduates seeking to enter the world of research! This guide covers when to start research, how to find a project, student experiences, helpful advice, URC resources, and SOAR resources at MTSU.

The next time you are asked how to get involved in research, direct that student to this resource!

This guide was initiated, compiled, and formatted by Dara Zwemer.

Stories were provided by SOAR students, including Cassandra Perrone, Leah Piccirillo, Javier Hernandez, Robert Conner, Charlotte Daigle, Madeline Aadnes, Maria Fernanda Clark, Kylie C. Moe, Miquellie Bonner, Merry Young, Kaitlyn Berry, Zachary Sanchez, Kap Paull, and Christopher Hall.

We hope you find it useful!
MTSU’s outstanding Research Groups and State of the Art Laboratories, all in one place.

The URC is proud to announce our new directory. This resource will allow students to learn about excellent MTSU labs and research groups across several disciplines. Both new and experienced student researchers can utilize this document to find research positions, set up collaborations with other labs, or to establish a specific thesis mentor.

This directory is also a resource for faculty members seeking student researchers. Each lab or group’s accomplishments, publications, and goals are detailed within the pages of this directory.

This directory contains descriptions, key skills necessary, and semester openings for several labs, divided by specific college. To access the directory, click the button on the right or scan the QR code.

PDF copies of the directory are also available to print.

*Please send any additions or updates to our URC Research Assistant, Gracie Johnson: gpm2h@mtmail.mtsu.edu
Interdisciplinary Research Experiences for Undergraduates - Embry Riddle Aeronautical University

- The participants will contribute to collaborative, interdisciplinary research projects relating to the Aerospace industry. Available research projects span a variety of methods and topics and aim to sustainably increase multidisciplinary research in aerospace engineering, chemistry, and applied space biology with the goal of improving future space materials science and human diagnostic technology. **Apply by March 8th, 2024.**

Summer Institute in Biostatistics and Data Science - Florida Atlantic University

- If you are an undergraduate or early graduate student with a curious mind, sense of justice, and some statistics, math, technology, biology and/or health science coursework, you are eligible for Florida’s Summer Institute in Biostatistics and Data Science Program (SIBDS). SIBDS is a Training Program funded by the National Institutes of Health (NIH). It will take place from May 20th to June 28th with faculty from FAU, University of Miami, and Florida International University. **Apply by March 15th, 2024.**

Tennessee Environmental Network Show of the South (TENSOS) Scholarship:

- The TENSOS scholarship is available for all students (undergraduate, master’s, and PhD) who are studying within the Environmental field. The application process involves submitting an online application ([located here](#)) which includes a brief abstract of the research. Once the application process closes, a select number of students will be selected as finalist. Finalists are invited to attend TENSOS in Chattanooga, TN, from May 15-17, 2024 to present their research and have the opportunity to win a $1,500 scholarship. Finalists receive complimentary conference admission and lodging which will also allow them to take advantage of an unprecedented networking opportunity with environmental professionals from Tennessee and beyond. Many of our scholarship finalists have received job offers because of their participation in the conference. **The application deadline is March 31st, 2024.**

Interested in more opportunities? **Click here** to explore more internship/research opportunities!
**LSU Discover Day Undergraduate Research Conference: Louisiana State University**

- LSU Discover Day is an annual multi-discipline undergraduate research conference held in Baton Rouge, LA at Louisiana State University each spring. Students from any college/university and from any major are welcome to submit an application to present their research or creative work. The 11th annual LSU Discover Day will be held in person on Friday, April 19th, 2024 at LSU’s Student Union.
- **Applications are due by March 3, 2024**

Check out the links below to explore other helpful resources!

- Internships and Research Opportunities
- Student Journals
- Paper and Presentation Opportunities
- Student Resource Center