

NEWS FROM THE UNDERGRADUATE RESEARCH CENTER

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Proud to be R2 in 2022

Scholars Week was a success, with over 160 poster presentations and several creative presentations! Photos from this event can be found on page 4. Our student researchers and their faculty mentors have elevated the status of MTSU, and that is reflected in MTSU's new status as an R2 research school!

Dr. David Butler, Vice Provost for Research, shared that MTSU had been classified by the Carnegie Classification of Institution of Higher Education as an R2: Doctoral University. This rating indicates that MTSU is a High Research Activity school, thanks to contributions from its faculty, graduate, and undergraduate researchers!

View the announcement [here](#).

In addition, application fees for all graduate programs at MTSU have been reduced to just two dollars for this academic cycle.

MTSU is increasing its commitment to fostering a research community for its students. To keep up with more research opportunities for undergraduates, check out our [website](#) for important deadlines and events. Also, we encourage students who are interested in research to take advantage of the URC's Lab Directory to find opportunities; similarly, faculty who wish to grow their lab can reach out to be added to this directory.

URC'S MISSION

The Undergraduate Research Center's (URC) mission is to be the central hub for communication about undergraduate research grant programs and other related opportunities on and off campus, to distribute university funds for undergraduate research and creative projects, and to promote dissemination of results through travel grants and by offering opportunities for students to present their research findings.

OUT NOW: THE URC LAB DIRECTORY

State of the Art MTSU Laboratories, all in one place.

The URC is proud to announce our new laboratory directory. This resource will allow students to learn about excellent MTSU labs 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's accomplishments, publications, and goals are detailed within the pages of this directory.

This directory contains laboratory descriptions, the key skills necessary for each lab position, 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.

Email Dara Zwemer, the URC Secretary and Social Media Ambassador, with questions about the directory or for a PDF: duz2a@mtmail.mtsu.edu



[CLICK HERE](#)



SCHOLARS WEEK AMBASSADOR

MIQUELLIE BONNER

FEATURED

in MTSU news



THE VERY FIRST SCHOLARS WEEK AMBASSADOR



Middle Tennessee State University senior forensic science major Miquellie Bonner of Mt. Juliet, Tennessee holds the honor of being the first student ambassador on the Scholars Week committee.

Bonner has worked tirelessly, tasked with organizing the university-wide 16th annual student research and creative activity exposition.

Around campus, she has been spreading the word about the annual student research and creative activity exposition in classrooms through collaboration with the Office of Research and Sponsored Programs, and the Student Organization for the Advancement of Research, or SOAR.

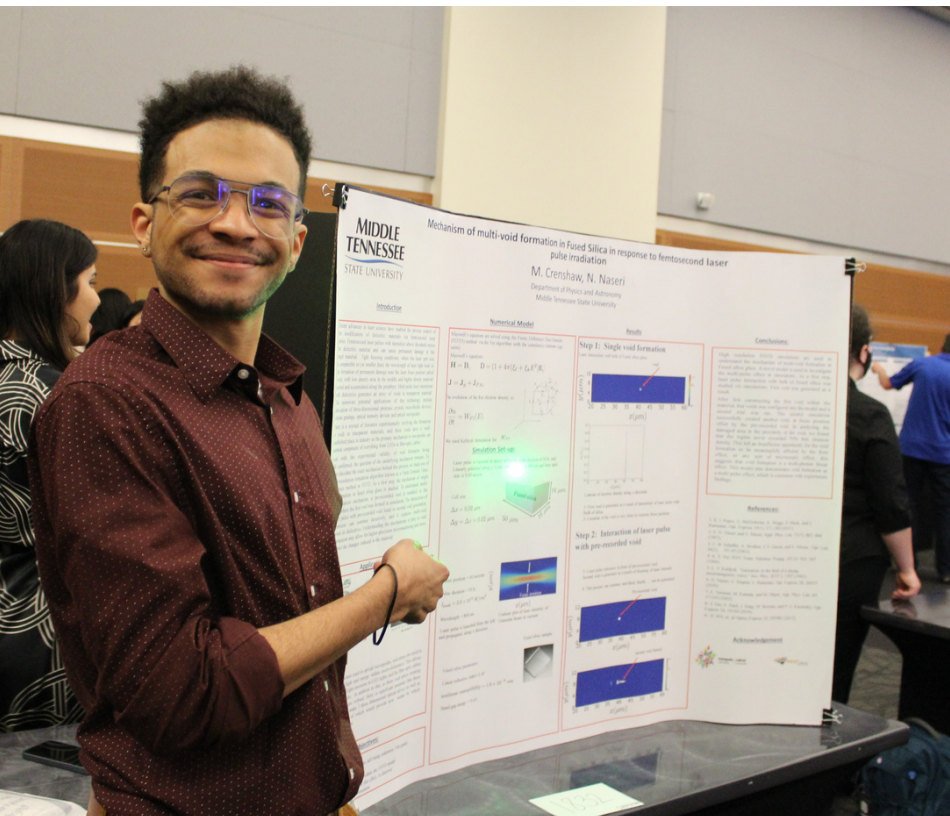


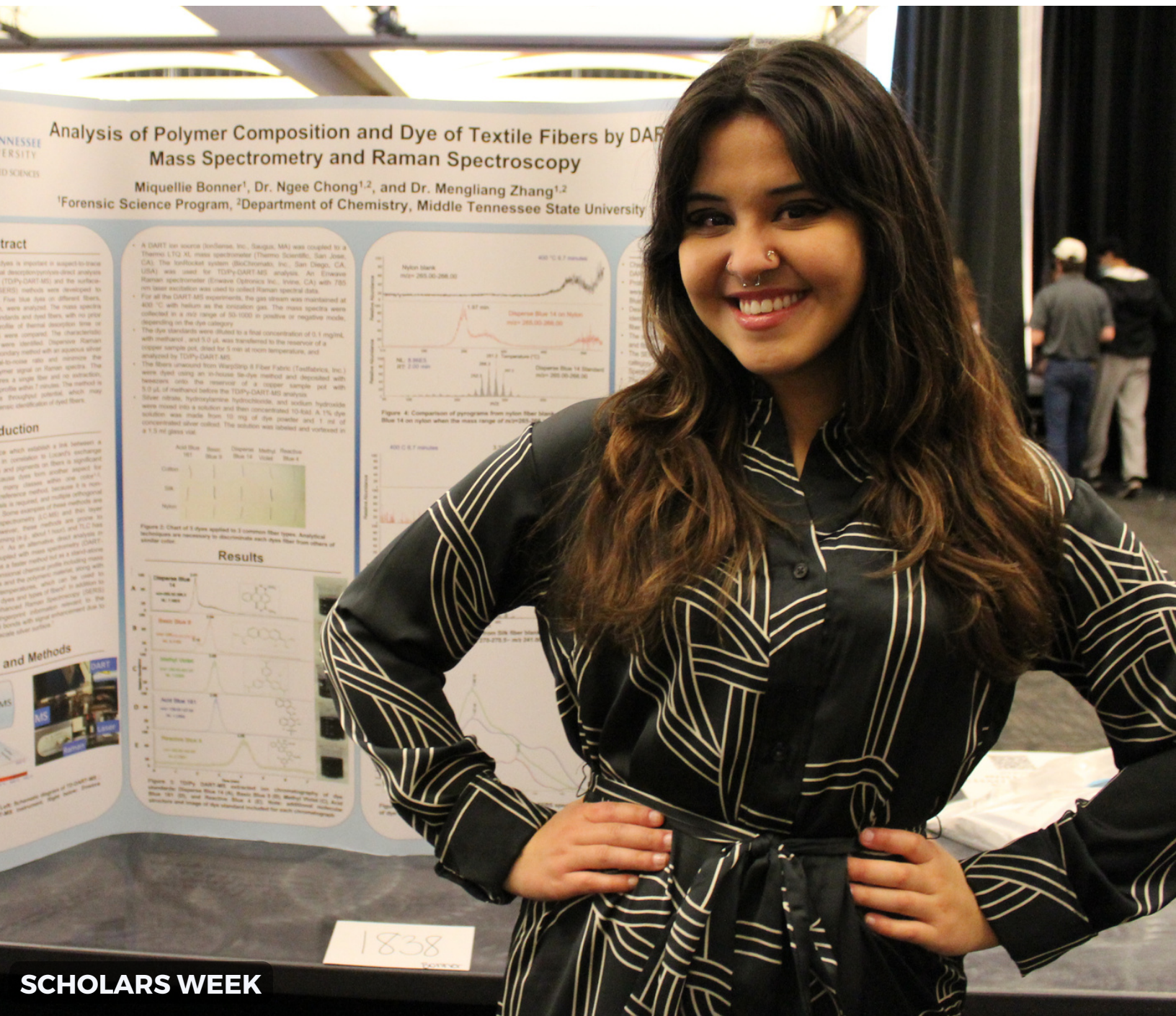
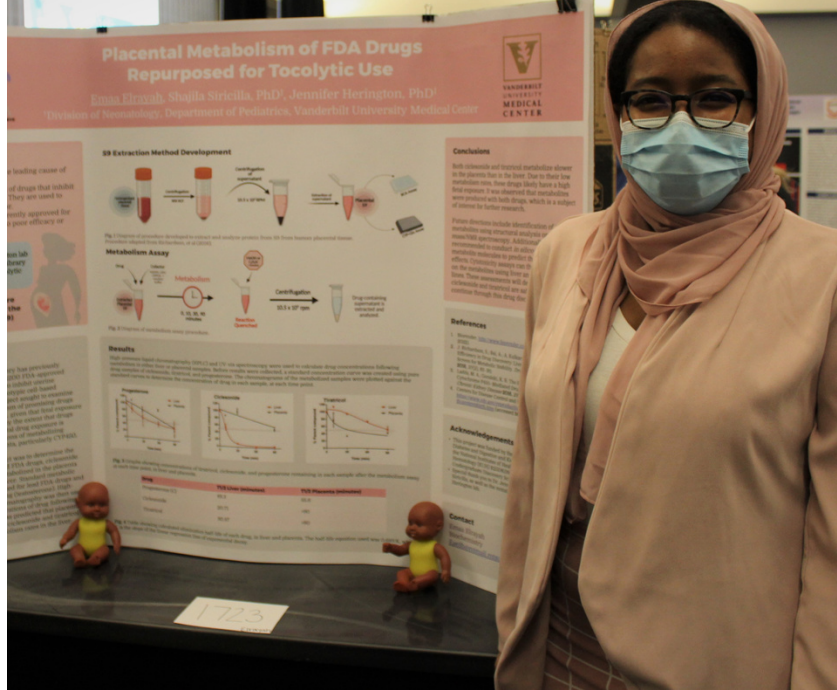
Scholars Week 2022

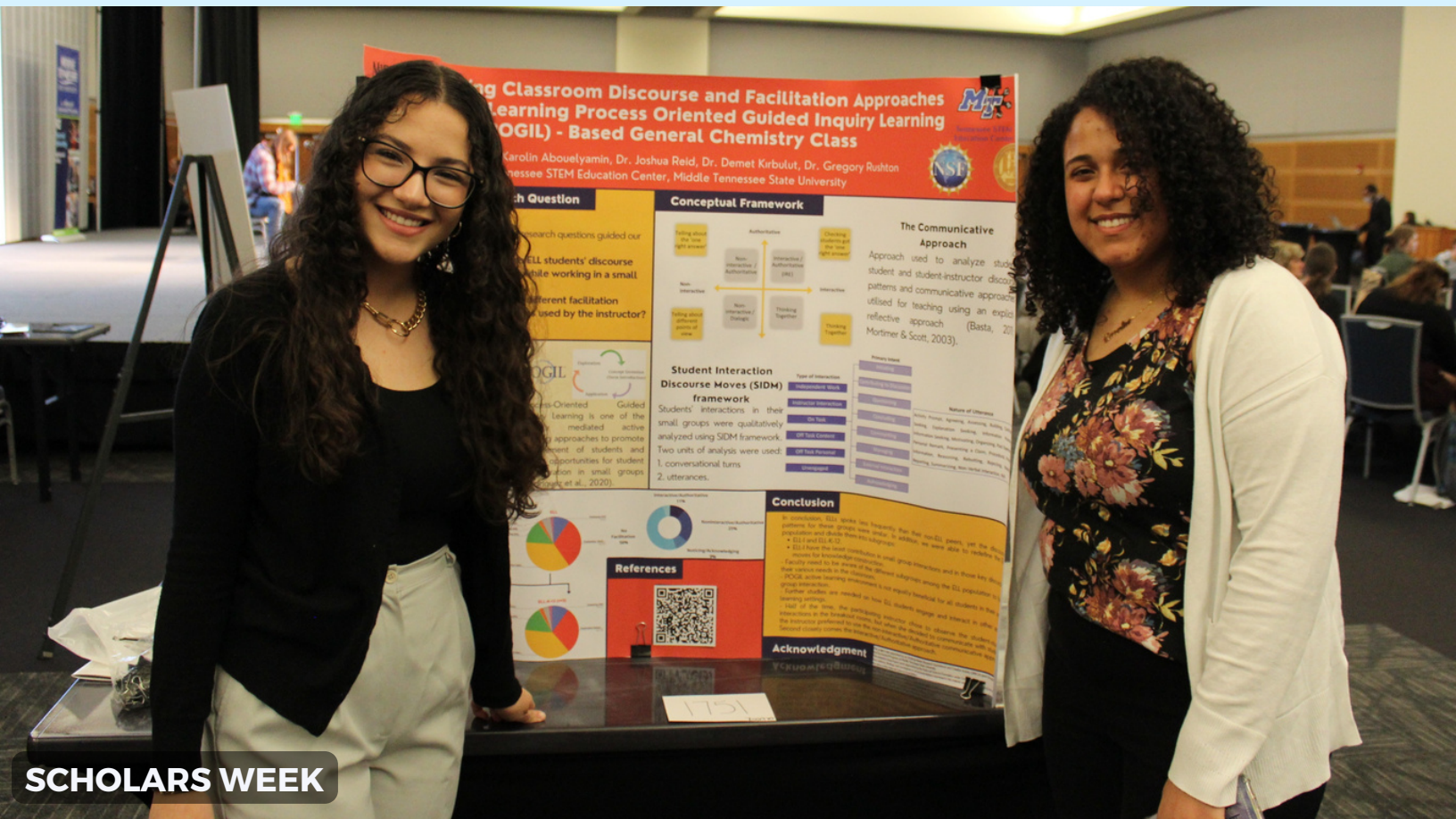
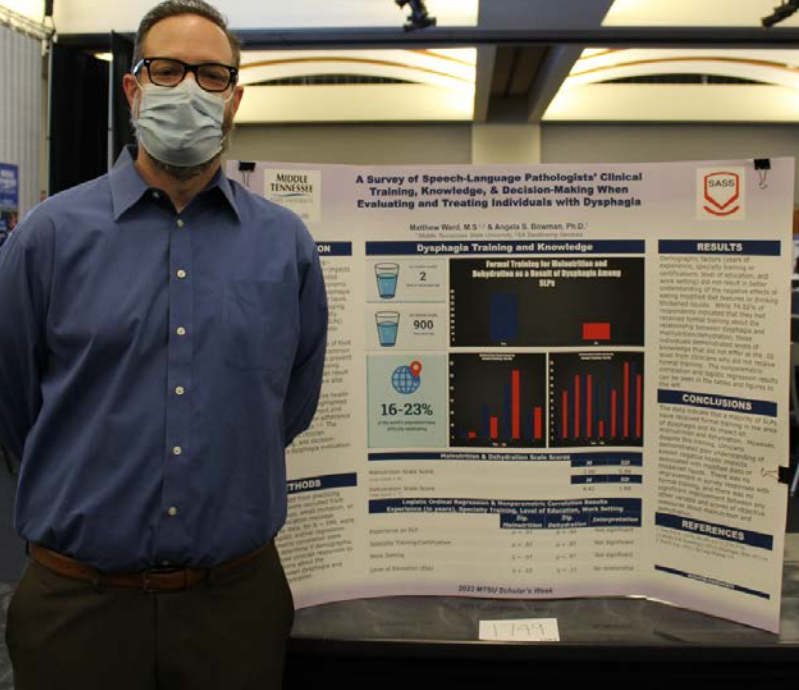
Posters highlighted a variety of topics across disciplines, including toxicology, reading research, COVID attitudes, signals from space, and more. Please check out the poster winners [HERE](#).

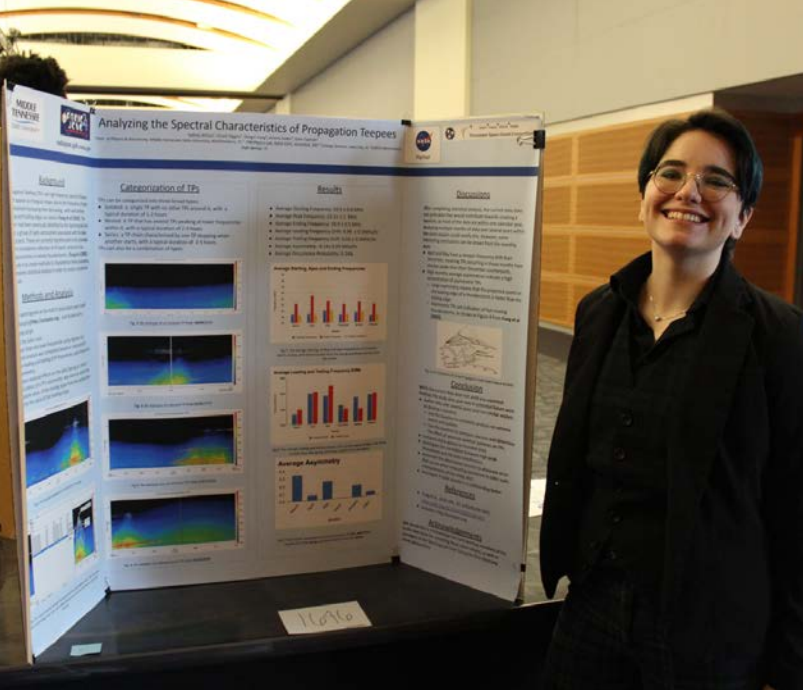
Additionally, several excellent creative performances occurred between the two main poster sessions.

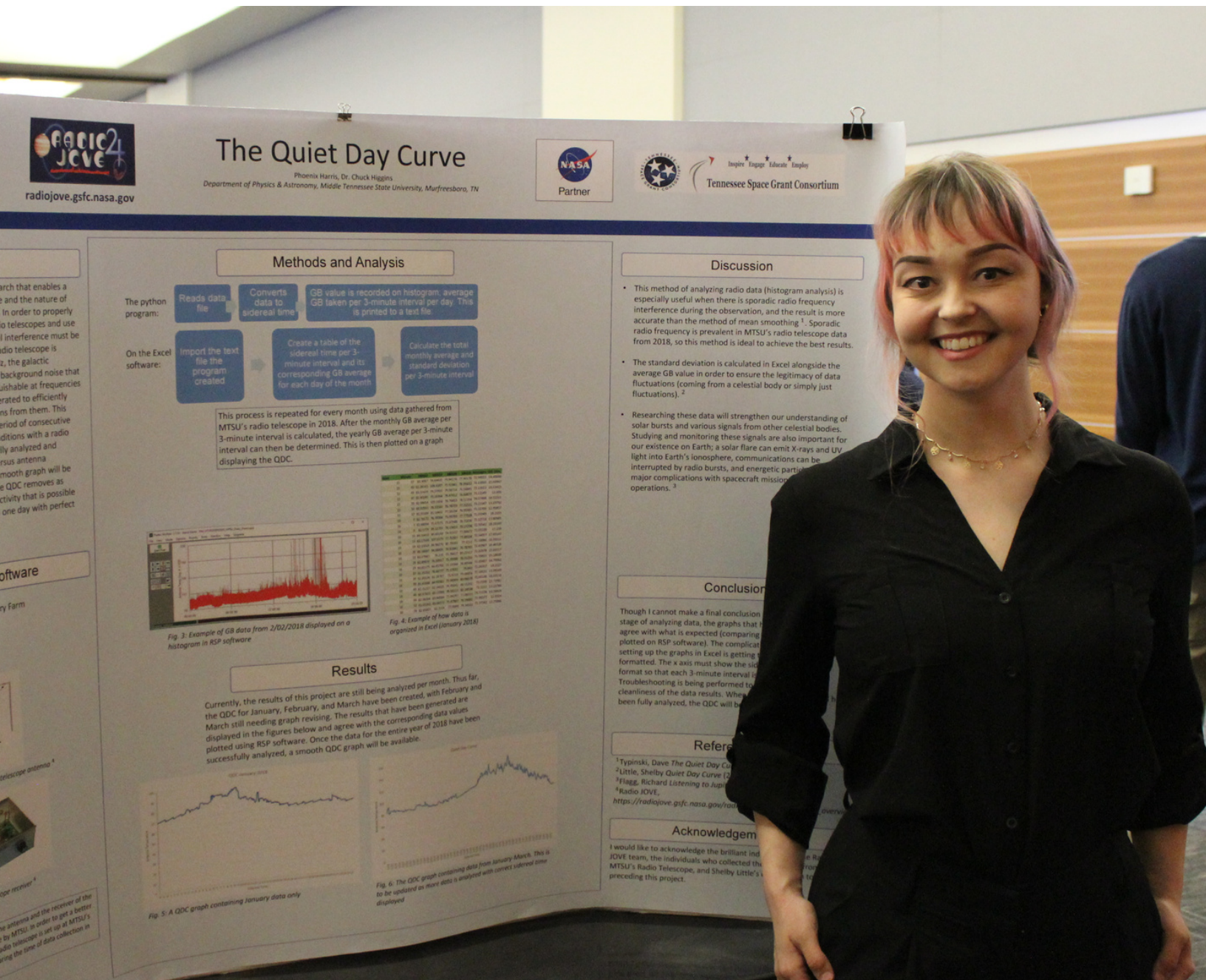
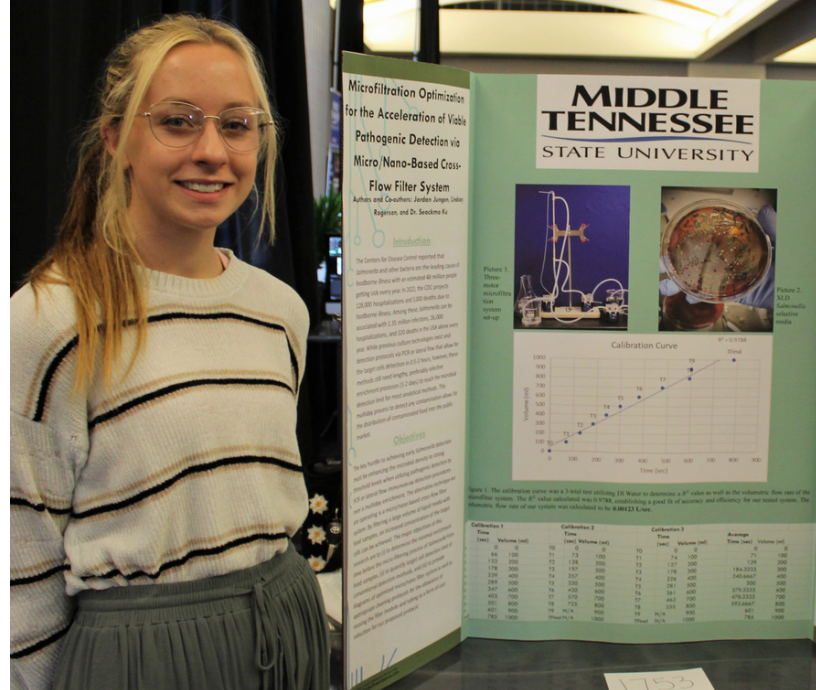
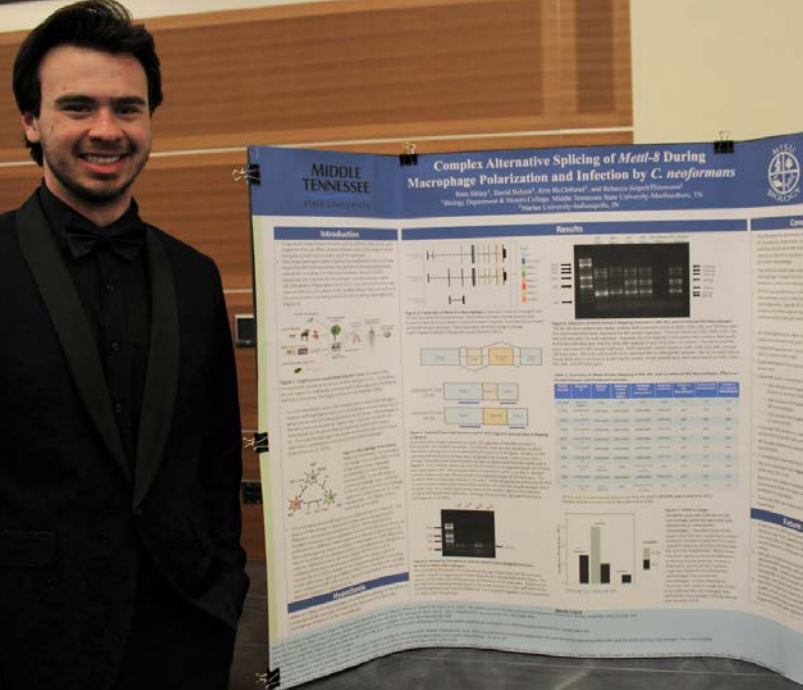
This year's event was especially exciting, as it was unveiled that MTSU is becoming an R2 institution in 2022! There's never been a better time to get involved with undergraduate and graduate research at MTSU!











11655

SCHOOL AARS

Exploring the Equivalency of Online vs In-Person Administration of a Standardized Reading Battery

Adam H. Dockery, Lauren L. Hunsicker, Emily A. Farris, & Timothy N. Odegard

INTRODUCTION

Standardized, norm-referenced reading tests have numerous uses, including screening for learning difficulties in schools. These tests are typically administered one-on-one in a private room, yet the ongoing COVID-19 pandemic makes in-person administration of these tests not ideal.

New health administration of cognitive tests in children, including speech and language tests, appear to produce similar results to in-person administration (Buller et al., 2020).

This project explores if online administration of standardized norm-referenced reading tests is equivalent to in-person administration of the same tests using virtual data from two separate studies.

METHODS

- Undergraduate students at MTSU completed the graphology department's SCMA system completed reading tests in 2 separate studies for in-person results.
- The first study (n = 76) was conducted online to a private room using physical stimulus cards.
- The second study (n = 22) was conducted after the start of the pandemic, in which the same tests were administered through a private Zoom meeting using screen capture to display the test stimuli.

RESULTS

Figure 3. Mean Reading Test Scores, as Reported in Online Administration

CONCLUSIONS & FUTURE DIRECTIONS

- Results showed that there were no significant differences in scores across administration modalities for all measures.
- Administration of WJRT-2 and WJRT-3 tests over Zoom modality appears to be equivalent to in-person administration.
- Future projects should:
 - Investigate if scores in these tests are equivalent when administered to the same sample across modality.
 - Investigate the equivalency of these reading samples, versus other test stimuli.
 - Explore the equivalency of other reading tests.



Effects of Service Time on Young Children From a Systems Engineering Perspective

Engineering Technology Department, Middle Tennessee State University
Aubul Adighan, Dr. Miss Farooq

ABSTRACT

Young children from military families face unique challenges due to frequent relocations and parental absence. This study explores the effects of service time on young children from a systems engineering perspective, focusing on cognitive and emotional development.

OBJECTIVES

- Identify the impact of service time on young children's cognitive and emotional development.
- Develop a systems engineering model to address these challenges.

EXPERIMENTAL DESIGN

RECOMMENDATIONS

- Develop support programs for young children of service members.
- Implement systems engineering principles in educational and social services.



CAREER ADVANTAGES OF BUSINESS EDUCATION COURSES FOR SCIENCE MASTER'S DEGREE STUDENTS

MASTERS OF SCIENCE IN PROFESSIONAL SCIENCE PROGRAM
Dr. Thomas J. GILMAN, Fellow, American Society (MSP's Graduate Coordinator), and Dr. Susan Foster (MSP's Program Director), College of Basic and Applied Sciences, Middle Tennessee State University

ABSTRACT

Middle Tennessee State University (MTSU) is the College of Basic and Applied Sciences created the Master's in Professional Science (MSP) program in 2014. These students program before to receive Middle Tennessee with completed each degree.

NUMBER OF STUDENT GRADUATES FROM PROGRAM

RESULTS

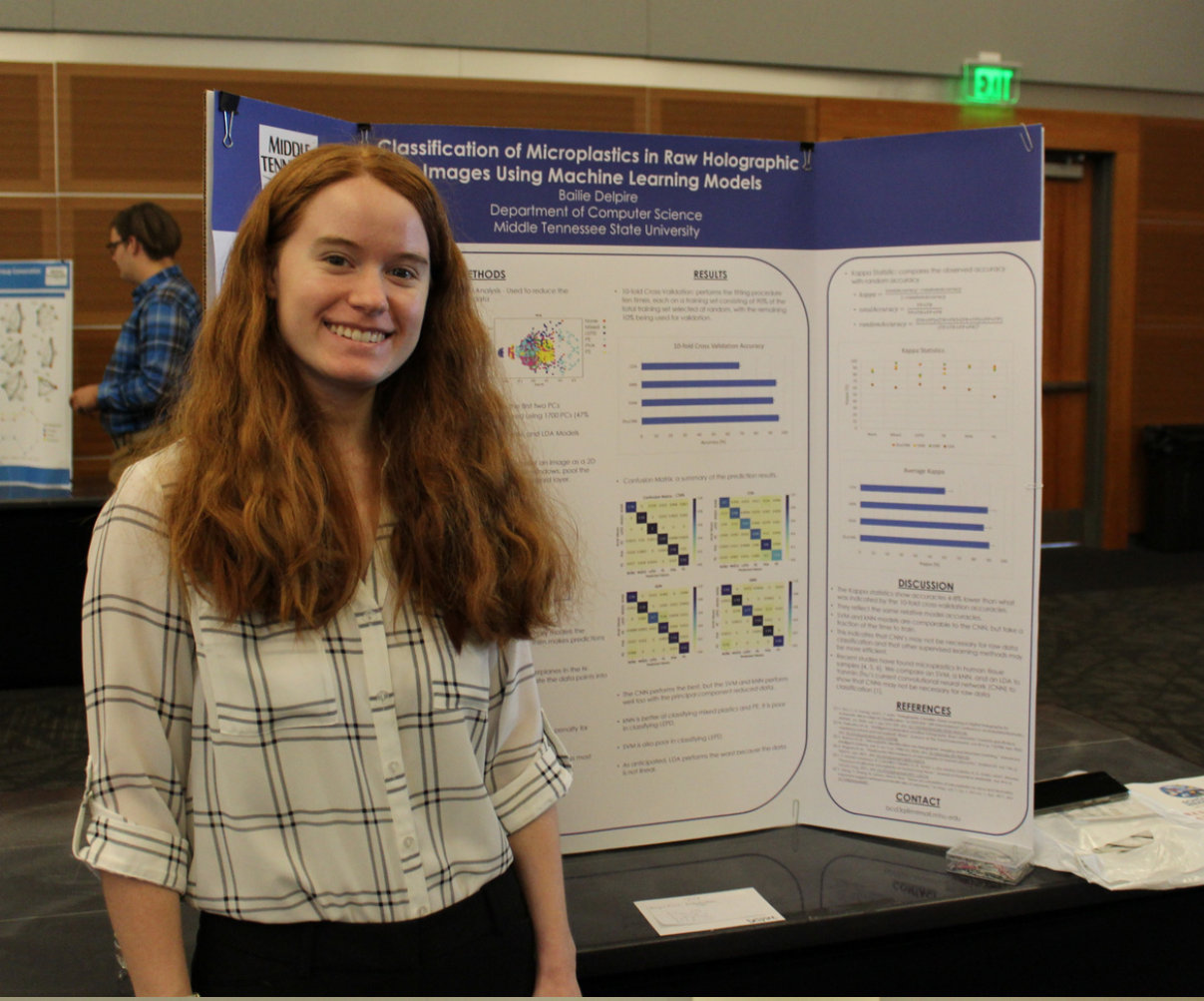
Student Influx Outcomes

Component	Overall Average	MTSU	Student 2011
Total Number of Students	39%	4,737%	3,911%
Program Retention Rate	8.5%	8.5%	8.5%
Graduation Rate	8.5%	8.5%	8.5%
Quality of Work	8.5%	8.5%	8.5%
Overall Performance	8.5%	8.5%	8.5%

CONCLUSION

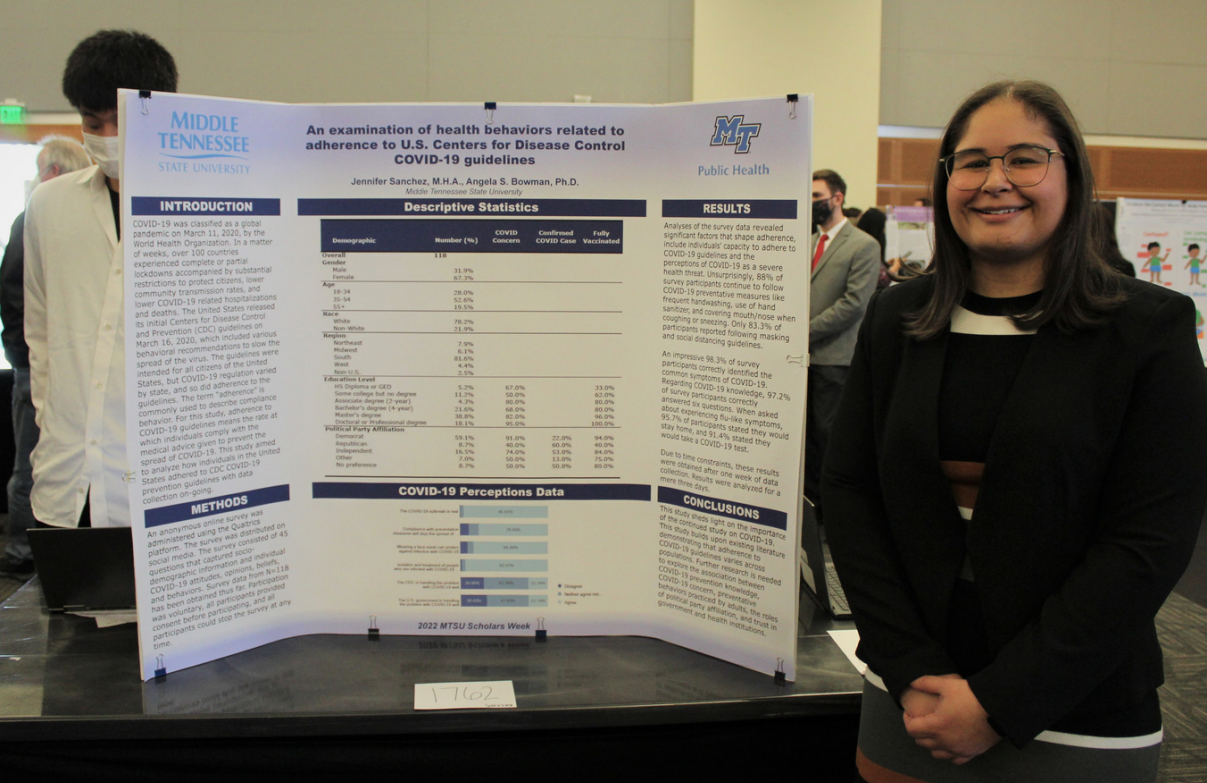
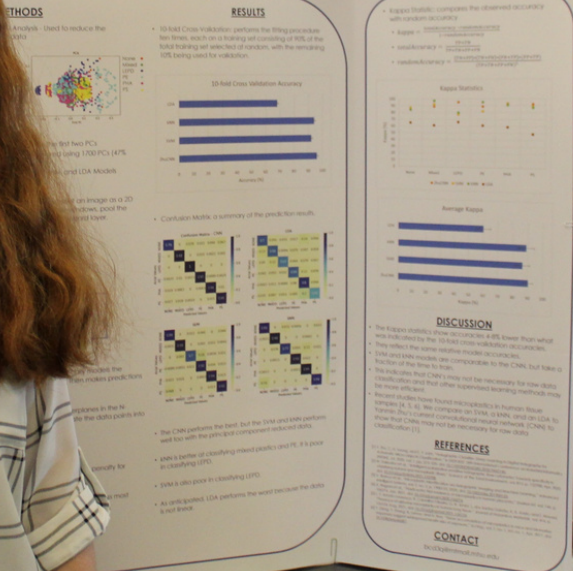
The MSP program is designed to provide students with a comprehensive education in business and science, preparing them for careers in various industries. The program's focus on practical skills and industry connections provides a significant advantage for graduates.





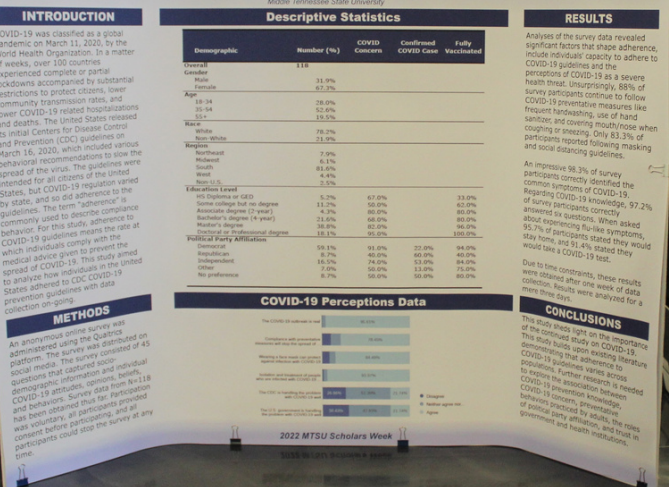
Classification of Microplastics in Raw Holographic Images Using Machine Learning Models

Baile Delpire
Department of Computer Science
Middle Tennessee State University



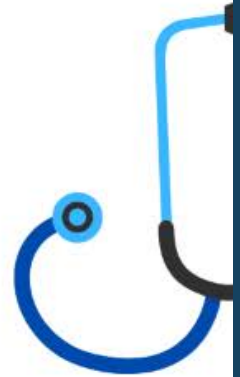
An examination of health behaviors related to adherence to U.S. Centers for Disease Control COVID-19 guidelines

Jennifer Sanchez, M.H.A., Angela S. Bowman, Ph.D.
Middle Tennessee State University



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2022



**THE STUDENT GOVERNMENT
ASSOCIATION
AND
PHARMACY CLUB
PRESENT:
SAVE A LIFE DAY!**

FREE CPR training & two year certification
for the first 25 students who RSVP!

APRIL 16TH, 2022

12PM - 3PM

RSVP HERE:



THIS EVENT HAS BEEN FINANCIALLY PARTIALLY SUPPORTED BY THE MIDDLE TENNESSEE STATE UNIVERSITY STUDENT GOVERNMENT ASSOCIATION (MTSU SGA). THE VIEWS CONTAINED HEREIN AT THIS EVENT OR PROGRAM DOES NOT NECESSARILY REPRESENT THE VIEWS OF THE MTSU SGA, THE SGA PRESIDENT, OFFICERS, MEMBERS OR THE UNIVERSITY. THE STUDENT GOVERNMENT ASSOCIATION IS FULLY IN ACCORD WITH THE BELIEF THAT ALL EVENTS AND PROGRAMS SHOULD BE AFFORDED THE SAME OPPORTUNITIES THAT ALL US CITIZENS RECEIVE FROM THE FIRST AMENDMENT OF THE UNITED STATES CONSTITUTION.



FEATURED SOAR STUDENT

KAP PAULL



Major: Allied Health Science (Pre-Pharmacy)

Faculty Mentor: Meg Brooker

Current Research Focus: How somatic movement techniques can be used to reduce stress and boost the moods of MTSU students.

Project Description:

This project compares techniques of somatic movement (BrainDance, Feldenkrais Method, Body-Mind Centering, and the Alexander Technique) and assesses their ability to be effective stress-reducing coping mechanisms. The steps of this project involved attending somatic movement workshops and collecting personal biometric data (heart rate and stress levels) before and after the workshops. Then, I created a video where I led somatic movement exercises in my room, in the rec center, and outside to demonstrate that these techniques can be done anywhere to relieve stress.

Why does this topic interest you?

Mental health is extremely important to me, and it is essential to engage with as many healthy coping mechanisms as possible during college, such as somatic movement.



What are your professional aspirations?

I will be a PharmD in 2026!

Do you have any advice for future researchers?

Get involved with research in an area you are passionate about! Also, research isn't scary. It takes an inquisitive mind, not a perfect mind, to conduct research.

What is the Student Organization for the Advancement of Research? AKA "SOAR"



SOAR is a student organization comprised of students who are committed to developing and sustaining an active and successful undergraduate research environment at MTSU.

Why Join?

1. It is a super cool group of students!
2. Sometimes we have snacks. If we are really lucky, we get lunch.
3. We host fun and educational events.
4. You will meet other students who are passionate about research and creative activity at MTSU.
5. Lots of opportunities for growth and professional development.
6. The option to graduate with distinction in undergraduate research!
7. And many more reasons....

Thank You

FOR A SUCCESSFUL SPRING MEETING!

SPRING MEETING UPDATES:

- We are looking for volunteers for Scholars Week. Contact Casey [Casey.Penston@mtsu.edu] if interested.
- SOAR Ambassador applications will open in April!
- Don't forget to submit your application for graduation distinction.



UNDERGRADUATE RESEARCH GRADUATION DISTINCTION



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 in the upper right corner)

DISTINCTION CRITERIA

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 Endorsement by 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 Endorsement by URECA faculty mentor.

Graduating in May?

Deadline to apply: April 29, 2022

Access the application [HERE](#).

It will take you about 5 mins to complete!



Seniors!!

Graduating this spring?
We would love to hear about your
post graduation plans!

To fill out our short survey,



or scan the QR code on your device!



CONGRATULATIONS!

SUMMER URECA GRANTS

**APPLICATION DEADLINE:
THURSDAY, APRIL 7, 2022 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, Jared Frazier, at jf5s@mtmail.mtsu.edu. Jared can also help with proposal development, budget and justification, creating a timeline, and proposal review. More info on the next page about our new SOAR Ambassadors!

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

Platinum Level -
experienced student
researcher, full-time
summer project, \$3,500
stipend

Looking to start your student research journey?

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!

[Click Here to View the Student Research Guide](#)

This guide was initiated, compiled, and formatted by current SOAR Secretary and URC Communications and Social Media Ambassador, 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.



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