UNDERGRADUATE RESEARCH CENTER



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Recognizing exceptional faculty

MTSU Research Video *Dance Program Takes Undergrads to Russia* Wins Bronze Award

Congratulations to MTSU's Marketing and Communications team who competed against other universities in the State of Tennessee to take home a bronze win in the "News Feature Video" category at the annual Tennessee College Public Relations Association Communication Awards.

The winning video featured Meg Brooker, Associate Professor of Theatre and Dance, and MTSU student dancers, as they prepared and performed at the Isadora Duncan Festival at Peoples' Friendship University in Moscow.

"We like to say that practice is research, and research is practice," said Meg Brooker, assistant professor in the Department of Theatre and Dance. "We encourage traditional research such as going to the library, writing papers, and conducting interviews, but we also practice embodied research, where we're putting ourselves into an experimental space and reflecting on what that experience is like." The video is a beautiful representation of Brooker's work and extremely deserving of the award. To view the video, please click the YouTube link.

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.

STUDENT SPOTLIGHT





Luke Gormsen, a spring URECA Assistant grant recipient and Aerospace major, focused his research on developing a hydraulic system that could function on Mars given the temperature, gravity, and atmospheric pressure challenges. Using MATLAB software, Luke was able to construct and test a hydraulic system in conditions that would be experienced on Mars. From the data obtained, he then modified the hydraulic system in order that it could operate on Mars similarly as it would on Earth.

Faculty Mentor: David Butler, Vice Provost for Research

Olivia (Livi) Goodgame, a Spring 2020 URECA Assistant grant recipient and a long-time Middle-earth geek, always wanted to learn Elvish. For her URECA grant proposal, she began a research project conducting a morphosemantic analysis of Tolkien's Elvish language. In simpler terms, Livi looked for patterns and grammar rules in the language by cataloguing Elvish vocabulary and analyzing the roots, prefixes, and suffixes.

In J.R.R. Tolkien's book The Lost Road and Other Writings, there is a section devoted to the etymologies of the Elvish language created by Tolkien. Livi used this section to examine the Elvish vocabulary and its English translations. She then compiled the vocabulary, pronunciations, and translations into an English-to-Elvish dictionary along with the Elvish morphology. The final product became a tool to encourage students to conduct research and study linguistics, a publication titled *Tolkien and Word Science: An Unexpected Journey*.





Faculty Mentor: Amanda Swenson, English SAVE THE DATE!

Fall Research Open House

November 10, 2020 Science Building Atrium | 11-1pm

The Undergraduate Research Center presents our 3rd Annual Open House on November 10 from 11-1pm in the Science Building atrium, 2nd floor. This event is an informal poster session that showcases a sampling of current undergraduate research and creative projects at MTSU. All students, particularly new students and transfer students, are invited to attend.

This event presents the following opportunities for students:

- Introduction to undergraudate research and the importance of dissemination;
- Experience a variety of academic poster presentations representing an array of majors and disciplines;
- Present questions to current researchers about how they became involved in undergraduate research, how they balance coursework and research, and how they selected a faculty mentor;
- Find out more about our spring & summer URECA grants; and
- Learn about SOAR from current members.

FACULTY: We invite you to feature this event as an extra credit opportunity for your students. They will be required to talk with a minimum of 5 student presenters, which will be verified by the presenter initialing their program. I will sign off on the program once all requirements are met. Students can then submit the program to you for extra credit.



Added bonus: FREE boxed lunch for all pre-registered attendees! Due to COVID-19, we are limiting the number of attendees to the first 50 students who sign-up.





LIBRARY RESEARCH FOR THE UNDERGRADUATE RESEARCHER: A TWO-PART WORKSHOP SERIES

LIBRARY RESEARCH AND THE LITERATURE REVIEW

AND

COMPLETING THE RESEARCH **PROPOSAL**



Part 1: Library Research and the Literature Review

Librarians will introduce a research proposal template, demonstrate how to conduct library research about your area of interest, and discuss how to complete a literature

> Tuesday, October 13 2:40 - 4:05pm

review.



Part 2: Completing the Research **Proposal**

Librarians will expand on the components of the research proposal template and discuss steps for completing the proposal, including the introduction, methodology, research design, and ethical considerations.

> Thursday, October 15 2:40 - 4:05pm

Register for Part 1 HERE. Register for Part 2 HERE.

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UPCOMING WORKSHOPS

The URC is excited to collaborate with the Walker Library for our upcoming workshops. Check them out!

SAGE Research Methods for Students

Two Sessions: Tuesday, 9/22 @ 10:20am and Thursday, 9/24 @ 1:50pm

See flyer for more details.



Library Research for the Undergraduate Researcher: A Two Part Series

Part 1: Library Research and the Literature Review

Tuesday, October 13th 2:40 - 4:05pm

Part 2: Completing the Research Proposal

Thursday, Octbober 15th 2:40 - 4:05pm

See flyer on page 3 for details.

SAGE PUBLISHING presents

SPONSORED BY

Walker Library

Undergraduate Research Center

SAGE FOR STUDENTS WORKSHOP

Do you have a good research topic, but need a bit of help refining your research question and process? Are you looking for guidance on your research project from beginning to end?

If so, SAGE Research Methods (SRM) is the tool for you!

TUE. SEPT. 22

@ 10:20 AM

8

THUR. SEPT. 24

@ 1:50 PM

Discover how to find resources to help you write a more effective research question, conduct a literature review, select your research method, gather, analyze, and write up your research findings, and more!

Please register using the link below.

https://library.mtsu.edu/sage/events

WELCOME NEW SOAR MEMBERS!

SOAR stands for Student Organization for the Advancement of Research and is a new student organization compromised of undergraduate students who are committed to developing and sustaining an active and successful undergraduate research environment at MTSU. We are excited to welcome our new members who joined in August: Dara Zwemer, Luke Gormsen, Catheryn Bolick, and Cole Buffalini.

FEATURED SOAR STUDENT

RADINA PORASHKA, VICE PRESIDENT

Major: Biology

Faculty Mentor: Dr. Anthony Farone

Current Research Focus: Survey of

Mosquito Predatory Ciliate Lambornella for

Potential Biological Control

Project Description: The main focus of the research is to identify the ciliated protozoan - Lambornela clarki, which is known to target mosquito larvae. Water samples are collected from still waters around MTSU, Unionville, Redwood, CA., Big Torch Key, FL., and the Bahamas. The samples are then used in different environments and observed for a specific time frame, during which we use inverted phase-contrast microscope to observe the ciliates' behavior. Isolation techniques are also endorsed to help limit organisms that we are not focusing on. Once we have a pure sample, PCR and qPCR are performed to confirm whether the found ciliate is Lambornella clarki. As of right now, we have 37 samples collected, and 19 samples demonstrate possible Lambornella clarki based on photos and diagrams of Lambornella within the literature. The goal of the research is to utilize Lambornella as a biological control source for mosquitoes.



Do you have any advice for future researchers?

Be curious, persistent and responsible. Research allows you to learn so much about the topic that you have chosen, but with learning comes responsibility. It is very important to understand the importance of the work that you are doing and not lose interest when it might look like your research is not going to plan. It takes time and it takes willingness to devote your personal time and work into it. But it is absolutely worth it!

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CONGRATULATIONS

OUR SINCERE CONGRATULATIONS TO THE FOLLOWING INDIVIDUALS WHO WERE RECOGNIZED AT THE FALL FACULTY MEETING. WE ARE GRATEFUL FOR YOUR COMMITMENT TO UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY.

Mary B. Farone, Biology, Career Achievement Award

Erin Anfinson, Art and Design, Outstanding Teaching Award

Jenna Gray-Hildenbrand, Philosophy and Religious Studies,

Outstanding Teaching Award

Thomas W. Brinthaupt, Psychology, Distinguished Research Award **Jackie Heigle**, Professor Emerita, Media Arts

Joshua L. Phillips, Computer Science, Tenured and Promoted to Associate

Professor

Nate Phillips, Agriculture, Promoted to Professor

Kathryn G. Blankenship, Health and Human Performance, Tenured and

Promoted to Associate Professor

Bethany Wrye, Health and Human Performance, Tenured and Promoted to Associate Professor

Chandra R. Story, Health and Human Performance, Tenured

Joshua R. Aaron, Management, Promoted to Professor

Kevin S. Krahenbuhl, Educational Leadership, Tenured and Promoted to

Associate Professor

Eric Oslund, Elementary and Special Education, Tenured and Promoted to Associate Professor

Meg Brooker, Theatre and Dance, Tenured and Promoted to Associate Professor **Leah Tolbert Lyons**, World Languages, Literatures and Cultures, Promoted to Professor

