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.

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

NEW this year: 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 can be found on our website.

Also, check out our virtual workshop! This YouTube video features several of our undergraduate researchers and provides an overview of the services we provide in the URC. It also walks students through the necessary steps to apply for a URECA grant. Click here to access the video.

UREC'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.

UREC APPLICATION DEADLINE: JANUARY 28TH, 4:30PM
Posters at the Capitol has been cancelled for 2021 due to COVID-19. However, a similar event offered on the national level is taking place virtually and MTSU students are encouraged to apply.

Each spring, the Council on Undergraduate Research (CUR) hosts a national undergraduate poster session for the U.S. Congress, Posters on the Hill. At this event and its related activities, members of Congress and their staff learn about the importance of undergraduate research through talking directly with the student researchers involved in these programs.

POH 2021 will take place virtually April 27-28, 2021. Here is all that you need to know in order to submit your abstracts and become a part of the event:

- January 22, 2021 - Submission deadline
- March 15, 2021 - Notifications of acceptance sent and registration open
- April 19, 2021 - Deadline to register
- April 27 - 28, 2021 - Event takes place on Tuesday and Wednesday

The application is open to all undergraduate students all across the United States. Please visit the website for further information.

Deadline to submit:
January 22, 2021

MARK YOUR CALENDARS!

Scholars Week 2021

April 12-16, 2021

Scholars Week is a long-standing MTSU tradition during which academic colleges celebrate scholarship, research and creative activity through a variety of events and activities.

We are awaiting event guidelines for spring to make determinations as to whether Scholars Week activities will be in-person, virtual or a hybrid offerings due to COVID-19 restrictions. Decisions regarding the event will be confirmed as soon as possible.
Omar Aly
Species composition of forensically-important flies associated with human decomposition at the Anthropology Research Facility of the University of Tennessee
Faculty Mentor: Yangseung Jeong, Biology

Dillion Arnold
Effect of switch trimming on fly avoidance behaviors, udder cleanliness, and milk quality in lactating Holstein and Jersey dairy cows
Faculty Mentor: Maegan Hollis, Agriculture

George Boktor
Disorder-induced Metal-insulator Transitions: a Quantum Cluster Study
Faculty Mentor: Hanna Terletska, Physics & Astronomy

Miquellie Bonner
Novel Method for the Forensic Dye Analysis by Direct Analysis in Real Time Mass Spectrometry
Faculty Mentors: Mengliang Zhang, Chemistry; Ngee Chong, Chemistry

Meredeth Bryson
Horizontal Positional Accuracy Assessment of 7.5’ Digital Geologic Maps of Part of the Nashville Dome, Central Tennessee
Faculty Mentor: Mark Abolins, Geosciences

Shelby Cox
Assessment of Cannabinoid Levels in Successively Cloned Generations of Industrial Hemp (Cannabis sativa)
Faculty Mentor: John Dubois, Biology

Jared Frazier
Blue Mars Initiative: Developing Linear Regression and Artificial Neural Network Models to Forecast Mesoscale Martian Weather Conditions
Faculty Mentor: David Butler, Vice Provost for Research
CONGRATULATIONS
to the following students who were accepted to present at the
National Conference on Undergraduate Research!

**Jewel Galloway**
*Evaluation of Physiological Traits Expressed in vitro and Effects on Plant Growth by Bacillus Endophytes*
Faculty Mentor: Stephen Wright, Biology

**Jori Graeff**
*Sterol Composition of the Peridinioid Dinoflagellate Zooxanthella nutricula, a Symbiont of Polycystine Radiolarians: Implications for Symbiont-Derived Radiolarian Sterols and a Comparison to Sterols of Other Dinophyceae*
Faculty Mentor: Jeffrey Leblond, Biology

**Koda Hengstenberg**
*Exploration of Aurone System in Mercury Sensing*
Faculty Mentor: Scott Handy, Chemistry

**Yostina Lamei**
*Effects of Dopamine Agonist and Antagonist on Social Behavior in Mice*
Faculty Mentor: Tiffany Rogers, Psychology

**Jake Maisano**
*Using Fermentation to Create Environmentally Friendly Food Packaging: Testing Antioxidant Properties of Kefiran for Use in Plastic-Free Films*
Faculty Mentor: Keely O'Brien, Agriculture

**Autumn Martin**
*Fixed and Growth Beliefs about Different Ability Domains among College Student*
Faculty Mentors: Tom Brinthaupt, Psychology; Ryan Korstange, University Studies

**Kylie Moe & Ashton Reece**
*The endosymbiotic bacterial community of the causative agent of white-nose syndrome (Pseudogymnoascus destructans) of bats*
Faculty Mentor, Donald Walker
CONGRATULATIONS
to the following students who were accepted to present at the
National Conference on Undergraduate Research!

**Gabriella Morin**
Determining How the PINK1:Parkin Mitophagy Pathway Responds to Transient Mitochondrial Stress and How This is Affected By Disease Associated Mutations in Parkin
Faculty Mentor: David Nelson, Biology

**Zachary Sanchez**
Beliefs and Attitudes on Working with Older Adults Scale Development
Faculty Mentors: Shelley Moore, Nursing; Amanda Flagg, Nursing

**Nava Sepehri**
Drug Prevalence in Officer-Involved Lethal Shootings of Unarmed Citizens
Faculty Mentor: John Pennington, Psychology

**Amy Tran & Jillian Sherer**
Fluorescent Labels Based on the Aurone Scaffold: A Group Project
Faculty Mentor: Scott Handy, Chemistry

**Nathan Smith, Emerniece Cooper, Mary Parsley, Radina Porashka, & Sauleen Shamdeen**
Survey of Mosquito Predatory Ciliate Lambornella for Potential Biological Control
Faculty Mentors: Anthony Farone, Biology; Mary Farone, Biology

**Luis Zuniga**
Investigating Vertical Transmission of Microbial Symbionts in Marine Sponges
Faculty Mentor: Cole Easson, Biology

**Dara Zwemer**
Officer Workload and Officer-Involved Shootings of Unarmed Decedents from 2016 to 2017
Faculty Mentor: John Pennington, Psychology
**NSF BIT SURE Research Experience for Undergraduates (REU): Summer 2021**

Hosted by North Carolina State University, this 10-week program focuses on advanced sequencing tools that are transforming the way biologists conduct research and inclusive science.

Participants learn about sequencing techniques and participate in professional development opportunities. A series of workshops and service-learning opportunities promote diversity in science and learning.

BIT SURE participants receive a stipend in the amount of $5,500 for 10 weeks of research.

The application is available on the website: [go.ncsu.edu/BITSURE](http://go.ncsu.edu/BITSURE)

Deadline: February 14th, 2021

---

**STUDENTS! Are you presenting at a virtual conference this spring and would like assistance in paying for your registration fee? The URC can help!**

The Undergraduate Research Center strives to support students in dissemination of their research. Undergraduates who are accepted to present their research at a regional, state, national, or international conference are eligible to receive financial assistance for registration fees.

Awarded travel funds are payable on a reimbursable basis only.

Please contact Wendi.Watts@mtsu.edu for more information.

---

**Mark Your Calendars!**

Summer URECA Application

Deadline: March 25, 2021