

INQUIRIES

NEWSLETTER FROM THE UMKC OFFICE OF UNDERGRADUATE RESEARCH & CREATIVE SCHOLARSHIP

EUREKA! Courses Culminate in Symposium

The EUREKA! Symposium featured work from 270 students who were enrolled in course-based experiences in undergraduate research this fall. In-person presentations included 23 handcrafted mini-books from students who learned about the evolution of the book in Dr. Virginia Blanton's Text Technologies class, as well as 11 posters from students who learned about landscape formation in Dr. Caroline Davies' Geomorphology class. Online presentations included a total of 56 recordings, with presentations on the effects of tornadoes and wildfires from students in Dr. Alison Graettinger's Nature's Fury class, presentations on health issues that affect older adults from Dr. Jessica Bergner's Health Issues in Aging class, and presentations on determinants of public health for unique populations from Dr. Joseph Lightner's Public Health Principles and Public Health Capstone classes.

Throughout the semester, students in EUREKA! courses are challenged to grapple with real questions in their discipline. They learn how to apply research methods to pursue answers to those questions, and as they practice those new skills, they make discoveries of their own. The symposium offers students the opportunity to share what they have discovered with the UMKC community.



Michelle Larkin presents her poster, "Neo-geomorphology of the River Market Area of Kansas City, Missouri." Students in Dr. Caroline Davies' GEOG 314 Principles of Geomorphology Class studied landscape formation.



Arnaldo Acsevil presents his mini-book, "The Weekends Heart." The books created by Dr. Virginia Blanton's GECRT-AH 113 Text Technologies students represented their interpretations of personally significant texts.



OFFICE OF

Undergraduate Research & Creative Scholarship

www.umkc.edu/undergraduate-research

The Office of Undergraduate Research and Creative Scholarship supports high-impact learning opportunities by funding the work of undergraduate researchers, scholars, and artists; linking students with research opportunities; providing opportunities to enhance intellectual and career-building skills; and supporting quality faculty mentorship.

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Majid Bani-Yaghoub, Mathematics

Travis Fields, Mechanical Engineering

Alison Graettinger, Earth & Environmental Sciences

Jane Greer, English

Amanda Grimes, Health Sciences

R. Scott Hawley, Stowers Institute

Saul Honigberg, Biological Sciences

Kimberly Johnson, Multicultural Student Affairs

Seung Lark Lim, Psychology

Debra Leiter, Political Science

Ryan Mohan, Biological Sciences

Paul Rulis, Physics

Jeff Rydberg-Cox, Classical Studies

Student Ambassadors

Asayiel Alhajeri, Biology, Class of '23

Maya Baughn, Health Sciences, Class of '22

Zalyia Carr, Psychology, Class of '23

Kate Larberg, Earth & Environmental Sciences, Class of '22

Luke Romang, Earth & Environmental Sciences, Class of '23

Plan Ahead for Spring Opportunities

Undergraduate Research Fellows

Students who have been deeply involved in research or creative scholarship can apply for the Undergraduate Research Fellow transcript designation.

Application Deadline: March 1, 2023

Mentor Award Nomination Deadline

Faculty who have achieved excellence in mentoring undergraduate researchers, scholars, and artists can be honored with this award.

Nomination Deadline: March 1, 2023

SUROP Grant Funding

Students who wish to conduct scholarly, research, or creative projects under the direction of a faculty mentor may apply for a competitive grant to fund a maximum of \$1,250 in research or creative expenses. Students who are awarded a SUROP grant also receive a \$2,000 tuition grant.

Application Deadline: March 3, 2023

Annual Symposium of Undergraduate Research & Creative Scholarship

The 23rd Annual Symposium of Undergraduate Research and Creative Scholarship will be held on Thursday, April 20, 2023, in Pierson Auditorium.

Undergraduate students conducting research, taking part in creative scholarship, or preparing scholarly papers are invited to share their work with the UMKC community during the symposium.

Registration Deadline: April 10, 2023

Applications and registration forms for all programs can be found on the Office of Undergraduate Research & Creative Scholarship website:

[**www.umkc.edu/undergraduate-research**](http://www.umkc.edu/undergraduate-research)

Excellent Mentors Named Curators' Professors



Tina Niemi, Earth & Environmental Sciences



Massimiliano Vitiello, History & Classics

Faculty members who are honored with the Award for Excellence in Mentoring Undergraduate Researchers, Scholars, and Artists, not only guide students through their development as researchers, but also offer students the opportunity to partner and collaborate on ground-breaking research. Therefore, it came as no surprise when two previous honorees for Excellence in Mentoring Undergraduate Researchers were named Curators' Distinguished Professors this year. Tina Niemi, Earth & Environmental Sciences, and Massimiliano Vitiello, History, exemplify the outstanding scholarship of the Board of Curators' most prestigious appointment.

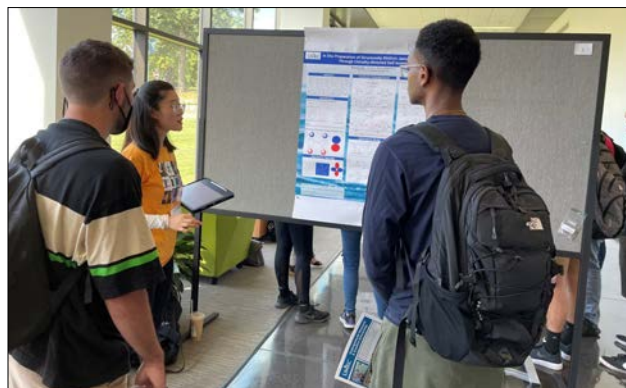
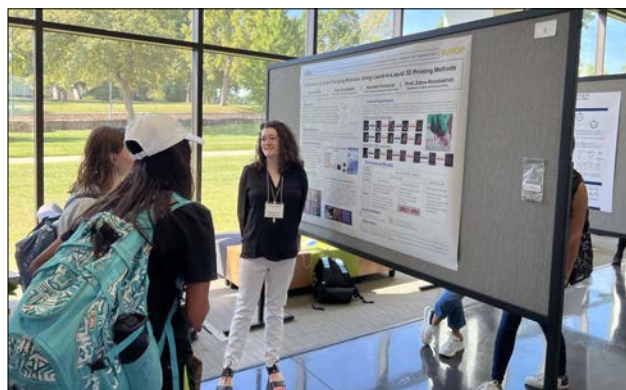
Truly a global citizen and researcher, Dr. Niemi urges undergraduate researchers to explore the world as well as their own backyards. She has invited students to join her on research trips that span the globe, from Southeast Missouri to Jordan, from California to Turkey and from the Bahamas to India. They have worked in 108F heat to collect samples from a 13,000-year-old lake bed in Mexico; they have measured a frontal thrust fault in the Himalayas; and they have

probed microfossil assemblages to track the impact of ancient tsunamis in the Caribbean. Dr. Niemi's students develop long-lasting friendships with her on their way to productive careers in industry, government service, and the academy. Dr. Niemi was honored with the Award for Excellence in Mentoring Undergraduate Researchers in 2016.

A passionate scholar and caring teacher, Dr. Vitiello generously connects his students with scholars, rare texts, funding, and other opportunities to advance their research and professional development. His passion for ancient history and late antiquity inspires his students to acquire the language skills necessary to examine primary texts and become true historians. The success of Dr. Vitiello's work can be measured by his students' impact in the wider scholarly community where they are regular presenters at regional, national, and international conferences and have matriculated to prestigious graduate programs. Dr. Vitiello was honored with the Award for Excellence in Mentoring Undergraduate Researchers in 2018.

SUROP Symposium Inspires

Summer provided rich research opportunities for 19 students who received Summer Undergraduate Research Opportunity (SUROP) grants. With research topics ranging from the urban heat island effect in Kansas City, to health policies related to child obesity, to recent immigration trends in Missouri, to using 3-D printing to create structures that mimic living tissue, these projects represented some of the most vital student-faculty collaborations on our campus. When students returned to campus for the fall semester, they presented their SUROP projects at a poster symposium attended by more than 100 students, faculty, and staff. The entire UMKC community was inspired by what these researchers had



Workshops and office hours offer students individualized support in applying to research opportunities. Students can learn from each other and ask questions in a supportive environment.



Students Receive Support in Seeking Research Opportunities

The Office of Undergraduate Research & Creative Scholarship offers workshops and office hours to help students prepare competitive applications for research positions and grants. In August, a dozen students attended a workshop to learn more about Undergraduate Research Associate Work-Study positions and prepare their application materials. In September, several students took advantage of office hours to prepare SEARCH grant applications and UR Fellow transcript designation applications. Throughout the fall semester, staff and student ambassadors gave presentations about research opportunities to students at orientation, student organization meetings, and mentoring cohort meetings. Upcoming events are listed on our website and in Roo Groups.

Fall 2022 Undergraduate Research Fellows

Students who have been deeply involved in the process of research, scholarship, and artistic production from the point of inquiry to the point of presentation, publication, or performance can be recognized with the transcript designation of Undergraduate Research Fellow. The following students were awarded the Undergraduate Research Fellow transcript designation in Fall 2022.

Maya Baughn
Health Sciences
Class of 2022



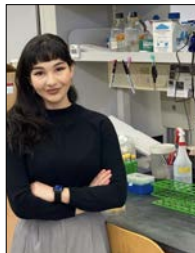
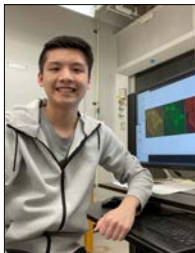
Polina Krasnopolskaya
Music Education
Class of 2023

Kaitie Butler
Mechanical Engineering
Class of 2024



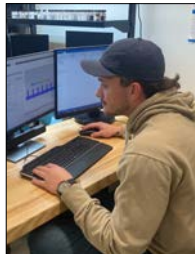
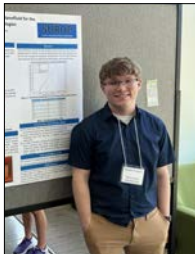
Laura Munoz-Baroja
Electrical & Computer
Engineering
Class of 2023

Christian Dang
Biology
Class of 2022



Elisa Rouse
Biology and Chemistry
Class of 2023

Michael Englert
Mechanical Engineering,
Class of 2023



Sam Sisk
Mechanical Engineering
Class of 2023

Carlyn Euritt
Biology
Class of 2022



Judy Vun
Nursing
Class of 2022

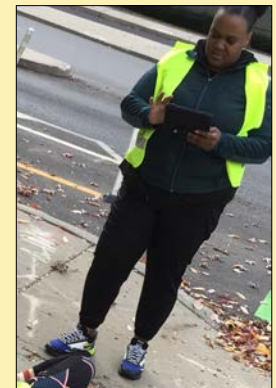
Students Make Progress on SEARCH Projects

Students Engaged in Arts and Research (SEARCH) grants fund faculty-mentored, student-led projects for the academic year. For the 2022-2023 academic year, 27 projects received SEARCH funding. Students started work on their projects as soon as they received notification of their funding, and they are already making significant headway. Read about how a few students are progressing and this spring you can meet all of the SEARCH grant recipients and learn about their projects at the 23rd Annual Symposium of Undergraduate Research & Creative Scholarship.



Mya Thomas and her mentor, Dr. Alison Graettinger, seek to help geologists safely place scale objects in the environment for data collection. Mya has built and is testing prototypes of deployment tools that can reach into restricted areas. Not only is Mya discovering new ways to make field work safer, but she is also experiencing the many benefits of undergraduate research. She says, “Working with my mentor, Alison Graettinger, has been such an inspiration. She has helped me see that my academic and professional goals are truly attainable.”

The goal of Cynthea Thompson’s project is to create a youth-informed walking map to connect patients and families in the Health Sciences District to walkable destinations. With her mentor, Dr. Amanda Grimes, and community partners, Children’s Mercy Hospital and Girls on the Run, Cynthea completed the walk audit and now is analyzing the results. Of her experience so far, Cynthea says, “The teamwork and encouragement I’m experiencing gives me great confidence to work on future projects.”



Yasmeen Hanon presented two previously developed research projects this fall at the University of Maryland Department of Government and Politics Rising Scholars Conference and at the International Studies Association Midwest Annual Conference. She accomplished all of this while working under the guidance of her mentor, Dr. Rebecca Best, on the initial analysis of her SEARCH project on the correlation between resource wealth and civil conflict in the Middle East and North Africa. Expanding the scope of her research has also added to her personal development. Yasmeen says, “Watching how my skills and passions have evolved through research allows me to utilize unique skills to add to the field.”

2022-2023 SEARCH Grant Recipients

Maya Baughn, '22
Health Sciences Major
Mentor: Amanda Grimes

Brandon Camacho, '25
Communication Studies Major
Mentor: Theresa Torres

Suha Cho, '23
Information Technology Major
Mentor: JJ Lee

Amanda Clay, '24 & Rayna Rucker, '24
Early Childhood Education Majors
Mentor: Ekaterina Strelakova-Hughes

Grace Dang, '24
Biology Major
Mentor: Zahra Niroobakhsh

Anthony DeWald, '23
Biology Major
Mentor: Leonard Dobens

Anh Doan, '24
Mechanical Engineering Major,
Mentor: Zahra Niroobakhsh

Michael Englert, '23
Mechanical Engineering Major
Mentor: Sarvenaz Sobhansarbandi

Nicholas Gaitan, '24 & Adam Waldren, '24
Biology Majors
Mentor: Jeff Price

Yasmeen Hanon, '25
Political Science / Environmental Studies Major
Mentor: Rebecca Best

Gavin Hysten, '24
Earth & Environmental Sciences Major
Mentor: Caroline Davies

Nusaybah Ibrahim, '24 & Laylah Liwaru, '24
Biology Majors
Mentor: Hillary McGraw

Radnyee Kandlur, '23
Biology Major
Zach Fischer

MaAh Kyi, '23
English / History Major
Mentor: Virginia Blanton

Liz Langford, '23
Earth & Environmental Sciences Major
Mentor: Caroline Davies

Olivia McCune, '23
Psychology / History Major
Mentor: Oh-Ryeong Ha

Tinh Nim, '23 & Chris Viermann, '25
Biology Majors
Mentor: Jeff Price

Claudia Perez, '26
Chemistry Major
Mentor: Jessica Magana

Adam Pribyl, '23
Mechanical Engineering Major
Mentor: Travis Fields

Gabrielle Pycior, '23
Biology Major
Samuel Bouyain

Luke Romang, '23
Earth & Environmental Sciences Major
Mentor: Tina Niemi

Mya Thomas, '25
Earth & Environmental Sciences Major
Mentor: Alison Graettinger

Cynthea Thompson, '25
Health Sciences Major
Mentor: Amanda Grimes

Jay Vanderslice, '24
Physics Major
Mentor: Paul Rulis

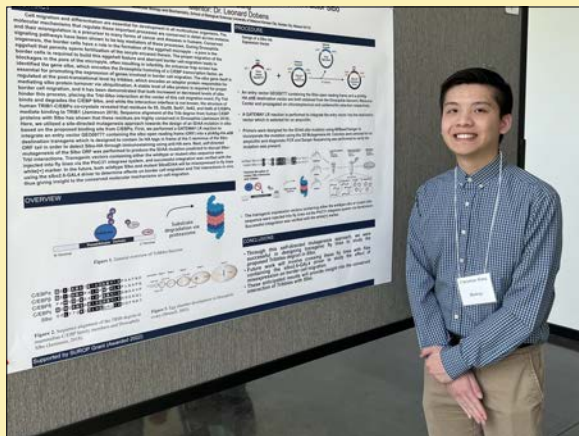
Toan Vo, '23
Chemistry Major
Mentor: Michelle Paquette

Benjamin Vandenburg, '24 & Reese Wood, '24
Biology Majors
Mentor: Saul Honigberg

Park Zebley, '23
Media, Art, & Design Major
Mentor: Caitlin Horsman

Christian Dang, Biology major, was awarded a Postbaccalaureate Intramural Research Training Award from the National Institute of Health (NIH). Following his December graduation, he will move to Bethesda, Maryland, to work in the Muscle Energetics Laboratory within the National Heart, Lung, and Blood Institute.

Christian gained a significant amount of research experience working with Leonard Dobens, Professor of Genetics, Developmental and Evolutionary Biology. He received a SEARCH grant for the 2021-2022 academic year, and a SUROP grant for Summer 2022 to study gene expression patterns and gene mutation.



We want to hear from you!

Are your students involved in research, grant-funded projects, presentations, publications, or performances of their original work? We want to celebrate their achievements! Email the details to

Maya Baughn, Health Sciences major, and **Victor Arellano**, Public Health major, published an article titled, “Physical Activity, Balance, and Bicycling in Older Adults,” in the online journal *PLOS ONE*. Co-authors include Joseph Lightner, Assistant Professor of Public Health, Amanda Grimes, Assistant Professor of Health Sciences, Gregory King, Associate Professor of Mechanical Engineering, and Brianna Hawthorne-Crosby, Mechanical Engineering MS ’21.

Maya and Victor began their work together as research assistants in the UMKC Active Lab. With guidance from Dr. Grimes and Dr. Lightner, they proposed related projects for SUROP grants in Summer 2021. The SUROP projects aimed to assess the relationship between physical activity, cycling, and balance in older adults by collecting data through questionnaires and accelerometers. After completing the summer projects, the study extended to invite participants in to the lab for a balance assessment. All of this work culminated in the article published in December 2022.

<https://doi.org/10.1371/journal.pone.0273880>

