

CENTER DEGREES

- Ph.D. STEM Education
- M.S. STEM Education
- Certificate STEM Education

All offered online NOW!

Programs
That Make a
Difference!

STEMontheGo Ready to Go

STEMontheGo aims to help USM faculty illustrate and communicate their research in the lab by building mobile versions to bring to K-12 schools, Black and Gold Day, public events, and more. Dr. Maria Wallace is coordinating these efforts as part of a larger \$1.5 million U.S. Department of Education award to expand the Center's STEM ecosystem. This work will improve USM's science communication, bringing the cutting-edge work of our professors to a broader audience with hands-on demonstrations, making the research more engaging and consumable for the public. This two-year effort kicks off this fall, beginning in partnership with Claire Clemons in the School of Polymer Science and Engineering.



BY THE NUMBERS

10

New fall 2023 graduate students

2,000+

Students and teachers involved
in *GenSea* in 2022-23

4,000

Students and teachers served
by *STEMonDemand* since 2020

100,000+

Downloads of *Reimagining
Science and Education in the
Anthropocene*, co-edited by
Dr. Maria Wallace

\$1.5M

Recent U.S. Department of
Education Award to Center

\$5.2M

External Funding

“STEMontheGo will expand teaching and learning beyond our university labs and classrooms into our communities in both Hattiesburg and on the Coast. We are excited about the new opportunities for Mississippi kids and families.”

DR. JULIE CWIKLA, Center Director

**Scholarships are available for those who qualify
for the STEM Certificate program.**

Dr. Kendrick Buford Partners with Hattiesburg High

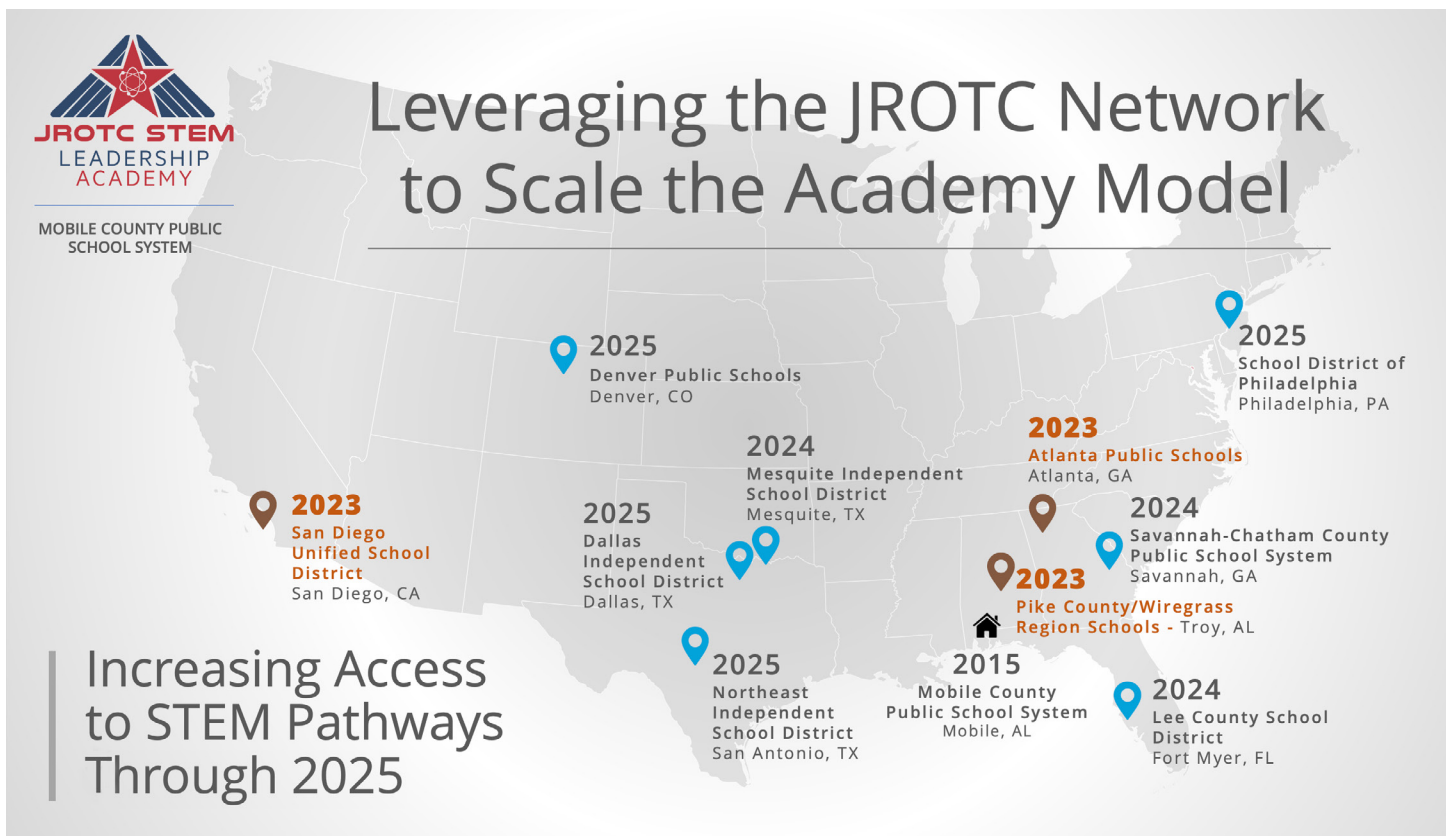
Dr. Buford has partnered with Hattiesburg High School and Base Pair out of UMMC to help students understand molecular biology. Using the Wolboachia Rodeo, a high school biotech competition, students are guided through a multi-year curriculum practicing research skills, such as protocol design, laboratory safety, project management, and increasing their

scientific literacy. The Base Pair program is intended to recruit more Mississippi high school students into the sciences by introducing them not only to the laboratory techniques, but real people doing the work here at USM, providing a window into a tangible and important career pathway.

STEM Leadership Academy Marching Across America

The JROTC STEM Leadership Academy, founded in 2015, was led by a large partnership including Center director, Dr. Julie Cwikla. Today, this model for STEM workforce development has begun replication and rollout to sites across the U.S., thanks to a \$6 million award from DoD STEM. Cadets spend a week immersed in residential summer camps with STEM careers and content as the focus. Each site builds partnerships with local industries, and the Center leads the research and evaluation component, capturing the complex replication process. In 2023, the model

proved successful in California and Georgia, and we are preparing for replication next in Florida and Texas.



Center SPOTLIGHTS

Gisewhite and Wallace Awarded CAS Faculty Honors

At a ceremony in April highlighting the 2022-23 school year, USM's College of Arts and Sciences bestowed the Faculty Advising and Mentoring Award on Dr. Rachel Gisewhite and the College Junior Faculty Member of the Year Award on Dr. Maria Wallace, both assistant professors in STEM Education.

“ It's unusual and laudable for a small department like ours to get one such award. To have two awards in one year is a testament to the talent we have in the Center. ”

DR. JULIE CWIKLA, Center Director



Seyda Uysal Joins Faculty in Visiting Mathematics Education Role



Dr. Seyda Uysal will spend the next year in Hattiesburg as Center visiting mathematics education faculty. She earned her bachelor's degree in mathematics at Ankara University and her PhD in curriculum and instruction from Florida State University, with time spent between degrees teaching math at the secondary level. Her research background includes game-based math learning and the role of factors, such as emotions, sense of self, and attitudes about math in

learning. Dr. Uysal's current interests encompass understanding secondary-tertiary transition in mathematics, researching attitudes and emotions in mathematics, and creating a sense of belonging to broaden underrepresented students' participation in mathematics.

“ I am thrilled to join the Center for STEM Education at USM as a new faculty member and work alongside brilliant scholars. This opportunity represents the perfect platform for me to inspire and guide the future generation of STEM educators. ”

DR. SEYDA UYSAL

learning. Dr. Uysal's current interests encompass understanding secondary-tertiary transition in mathematics, researching attitudes and emotions in mathematics, and creating a sense of belonging to broaden underrepresented students' participation in mathematics.

Chelsey Reid Building GenSea Community Mission

Kentucky native Chelsey Reid joined the GenSea team this spring as the assistant manager of outreach, taking up the reins of the Summer Internship Program and supporting other aspects of the program. Reid holds an MPH degree with a focus on health behavior from the University of Kentucky and has worked to respond to harm reduction, substance use disorder, and interpersonal violence, in addition to career readiness and student leadership development in higher education settings. She says her love of projects that grow community capital attracted her to GenSea, which aims to combat brain drain in the state by introducing local talent to coastal careers.

“ GenSea creates meaningful connections between students, teachers, and industry to support bright futures all around. It's an honor to be a part of such an impactful project and team. ”

CHELSEY REID, M.P.H.

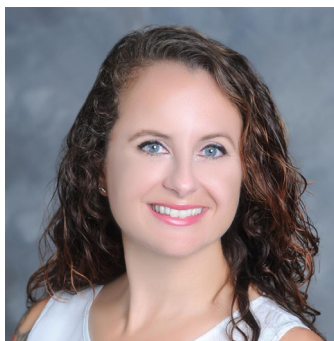


Center for STEM Education

FACULTY



JULIE CWIKLA, Ph.D.
Center Director
T. W. Bennett Professor



RACHEL GISEWHITE, Ph.D.



KENDRICK BUFORD, Ph.D.



ALLISON DOWNING, Ph.D.



KENNETH RHINEHART



MARIA WALLACE, Ph.D.

BREAKING NEWS

Two new research staff, **Dr. Julie V. May** and **Dr. Teresa Sappington Lampe**, are joining the Center team in October bringing us to a dozen strong growing a STEM ecosystem like no other in the region!

STAFF



CHRISSY HUDSON
Administration



TARA SKELTON
GenSea



CHELSEY REID
GenSea

Look Us Up!



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EOE/F/M/VETS/DISABILITY