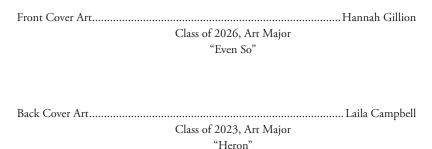
UNDERGRADUATE R E S E A R C H

Journal VOLUME 4 | ISSUE 1 | SUMMER 2024

Acknowledgements



Undergraduate Research is a national, independent, peer-reviewed, open source, biannual, multidisciplinary student research journal. Each manuscript of UR receives a DOI number. UR is archived by the U.S. Library of Congress. UR was established in 2020. ISSN 2766-3590

write during a time of great change and turmoil in higher education, and one where future direction is not quite certain. As a result from everything from demographic shifts to college athletics, the higher education ecosystem has been disrupted. Many smaller colleges and universities struggle with enrollment, leaving students with fewer options, while some landgrant universities continue an enrollment growth arms race that threatens to homogenize the higher education landscape. Meanwhile, civil unrest continues while study after study show the confidence in higher education is eroding from the general public. Whether as a result of inflation, bad press, or anecdotal evidence, many no longer believe in the civic good that higher education provides. Finally, the rapid development of generative artificial intelligence, and the relative accessibility of AI has already forced major changes in pedagogy. As AI grows exponentially, it becomes difficult for faculty to stay current. As faculty, we have not fully realized the potential (and dangers) of AI in the classroom.

All this is to say that undergraduate research is more important now than ever before. When I founded this journal, a hardworking crew of dedicated faculty got together to make this journal a reality, all during the beginning of the COVID-19 pandemic. At the time, it was hard to know what undergraduate research would look like when students returned to the classroom, or how this would impact their future. Just four years later, we stand at another precipice, and despite the obvious challenges I remain optimistic about the future of higher education. Research from Jillian Kinzie to Tia McNair to many others across the world have continually discovered that engaged, mentored research has long term impact on students. They are more resilient, have better critical thinking skills, and develop meaningful relationships. Undergraduate research does more than help drive inquiry and discovery, it builds skills for success in college and beyond. In short, an undergraduate research experience is transformative.

In this uncertain moment, I can think of no better solution than students undergoing sustained, mentored research projects—learning about success, failure, dissemination, and their own humanity through hands on experiences and beta-testing solutions to current problems. No one can predict where our present moment will take us, just as no one could have predicted the impact of COVID 19 on higher education. But it is surely these students who will be leaders of the future, and it is our job to make sure they are well equipped.

Jordan Cofer

Co-founder, Undergraduate Research Former Associate Provost Georgia College & State University

Undergraduate Research Journal Editorial Board

Editor-in-Chief Alesa Liles,

Georgia College & State University

Managing Editor Kelly P. Massey,

Georgia College & State University

Amy Buddie,

Kennesaw State University

Jordan Cofer,

Georgia College & State University

Ashley Hagler, Gaston College Kasey Karen,

Georgia College & State University

Jill Kinzie,

Indiana University Huda Makhluf,

Precision Institute National University

Marisa Moazen,

University of Tennessee-Knoxville

Niharika Nath,

New York Institute of Technology

Jeanetta Sims,

University of Central Oklahoma

Kate Theobald,

University of West Georgia

Charles Watson,

Association of American Colleges & Universities

2023 Board of Reviewers

Ronan Bolańos
Robert Case
Sara Doude
Kristin Girten
Kevin HuntGeorgia College & State University
Stephanie Jett
Rebecca Kudrna
James Landry
Oliver LangmeadLancaster University
Gavin Lee
Keith LeeValdosta State University
Jessica Louis
Bronwyn Lovell
Alexandra Natoli
LaVonne Riggs-Zeigen Grand Canyon University
Peter Rosado Flores
Kimberley Serpico
Katie StumpfGeorgia College & State University
Ronald White

About Georgia College & State University:

Georgia College & State University is the state's designated public liberal arts university — where practical education meets life-altering, real-world experiences. For us, a liberal arts education goes beyond simply memorizing facts and philosophies. A liberal arts curriculum teaches students how to navigate the complexities of life, assess the world around them, and become critical thinkers. Our skills-infused approach provides our students with an advantage that employers are looking for and expands the personal and professional lives of our graduates.

The university offers undergraduate and graduate education, and serves more than 7,000 students in the following colleges: the College of Arts and Sciences, the J. Whitney Bunting College of Business and Technology, the John H. Lounsbury College of Education, the College of Health Sciences, and the newly-established John E. Sallstrom Honors College. With its sprawling idyllic campus paired with talented faculty and staff, GCSU stands at the forefront of offering a holistic liberal arts education. Our students are engaged citizens who are encouraged to think independently and lead creatively as they acquire the skills to navigate life-long challenges.

GCSU is one of 26 institutions in the University System of Georgia, and we consistently rank among the top three universities in terms of student retention and graduation rates. GCSU also ranks 6th on the U.S. News & World Report's Best Public Regional Universities (South), and is recognized as a top university in the nation by the Princeton Review, Forbes Higher Education, and Kiplinger's.

GCSU won the Council on Undergraduate Research (CUR) AURA award recognizing top undergraduate research universities (2020) and was the first university in Georgia to win this distinction.



Table of Contents

8 Executive Functioning and Sluggish Cognitive Tempo as Potential Mediators in the Relationship Between ADHD and Emotional Intelligence

Emma Bradley, Westminster College

Mentor: Dr. Jessica D. Rhodes, Westminster College

26 Post-Developmental Mathematics Experiences in College Algebra for Stem Students

Maria Cruciani, University of Wisconsin-Eau Claire

Mentor: Dr. Katrina Rothrock, University of Wisconsin-Eau Claire

60 La liberté face à l'absurde : comment exister dans le monde moderne

Braiden Ellis, Georgia College & State University

Mentors: Dr. Hedwig Fraunhofer, Georgia College & State University Dr. Daniel Holcombe, Georgia College & State University

70 The Impact of Isolation From Other Members of the Greater Bamboo Lemur (Prolemur simus) Species on the Behavior of a Lone Greater Bamboo Lemur in Ranomafana National Park

Marissa N McCandless, Stony Brook University Alex Casamassima, Stony Brook University Sophie Thomas, SUNY Geneseo

Mentors: Dr. Patricia C. Wright, Stony Brook University, Centre ValBio, Ranomafana National Park Mónica Ramírez, Stony Brook University Dr. Jon Romano, Long Island University

82 Moab to Maharashtra: A Study in Sustainability

Sara Miner, Utah State University

Mentor: Dr. Marissa Vigneault, Utah State University