



Monmouth  
COLLEGE



In the fall of 2010, six of Monmouth College's outstanding students gathered around my dining room table. Their task was simple and yet enormous: figure out how to start from scratch an undergraduate academic journal. None had prior experience with this type of work. To their disadvantage, their five faculty advisors had much more experience publishing in journals than advising for them. We had set the modest goal of posting a few good submissions on a webpage. With some trepidation, I listened as these first student editors set their sights much higher. They wanted to publicize the journal well beyond our campus, maintain a high standard of scholarly excellence, and publish in print.



Much to the surprise and delight of the faculty advisors (Simon Cordery, History; Judi Kessler, Sociology; Kevin Roberts, English; C. Hannah Schell, Religious Studies; Fred Witzig, History), they accomplished their goal. Most of the original editors graduated that year, but thankfully, others stood up to take their place. Over the next ten years, students and faculty worked tirelessly to expand the journal's constituency to include authors throughout the United States and beyond. We saw the number of submissions grow almost fourfold even as the journal maintained its selectivity. Faculty and students organized two academic conferences and slowly built the structures and systems to sustain and grow the enterprise into the future. We were blessed with administrative support, alumni generosity, and scholarly expertise graciously contributed by many off-campus professors who reviewed submissions for the journal. Truly, this was a team effort.

The gratification came quickly. Authors whose work had been turned down expressed appreciation for the extensive feedback we always tried to provide. Those who saw their work published reacted with well-earned pride and gratitude. Student editors who had labored hard all year often received the new editions with great excitement, sometimes even tears. Undoubtedly, I will always remember one of the original student editors receiving the newly printed journals into his dorm room so that he could watch over them personally as we began distribution! In so many ways, students *owned* this journal.

While all of this certainly justified the investment in the journal, allow me to tell you what really mattered most to me. While I was with the journal, I was blessed to be the faculty advisor who worked most closely with the editors, hiring them and occasionally letting one go, attending their meetings, mentoring the leaders, and hearing out their frustrations when something went wrong. Occasionally an

author whose work we had turned down would ask for personal assistance; one even drove to Monmouth to talk with me about how to improve his scholarship.

Meanwhile, editors often told me that the best part of working for the journal was the camaraderie that grew up among the editors. I enjoyed that too. They spent many hours debating the merits of each submission, as true liberal arts students wrestling with the different academic disciplines and scholarly conventions. I learned too. Working so closely with others stretched them personally. So with me. They punctuated their intense deliberations with corny puns and inside jokes. I laughed too. I hope that their experience with the journal achieved more for them than mere names in print and lines on resumes, or even disciplines familiarized and scholarship engaged. Those six remarkable founding editors are: Geoff Bird, Submissions Editor; Hope Grebner, Copy Editor; Alex Holt, Copy Editor; Ben Peterson, Public Relations Editor; Anthony St. Clair, Publication Editor; and Wesley Teal, Online Editor. I believe each editor left the journal a better person. I did.

What you are holding in your hands, then, is more than the manifestation of countless hours of research, study, writing, revision, editing, and publishing. It is the evidence of young scholars, and their faculty advisors and reviewers, developing into more capable, thoughtful, and responsible fellow human beings.

May that enhance what I am sure will be an already-enjoyable reading experience.

Sincerely,

Fred Witzig, PhD

A handwritten signature in cursive script that reads "Fred Witzig". The signature is written in dark ink and is positioned below the typed name.

Dear Reader:

What a joy to introduce the twelfth edition of the *Midwest Journal for Undergraduate Research*. This volume, like its predecessors, is the result of tremendous effort by students and faculty members in the selection of research paths to follow, the research and scholarship conducted by the students, the productive mentorship by faculty, and then the review, editing, and publication of this volume. What a fantastic, collective achievement!



While much goes into a wonderful volume like this, once the outer layers are peeled back, it is clear that the essence of its power is the research and scholarship conducted by these accomplished students. It gives me great confidence in the future seeing the value they and others like them will bring to their fields, our society, and the world.

It is encouraging to see the research paths they have chosen, because in their choices, I see a drive for a better America and a better world. All good research, scholarship, and creative work at base seeks this. The scientist tracking a basic discovery that can be broadly applied seeks this. So too does the social scientist seeking to better understand human interaction, the literature professor seeking to capture and shape human understanding through a novel or a poem, and the artist who finds a way to capture, express, and shape human values through something they make with their hands or is performed on a stage.

Katherine Janeway Murphy contributes a timely and encouraging essay charting the more equitable manner in which health care workers are displayed on television over the last seven decades. The research uses content analysis to demonstrate that this representation has become more equitable and significantly less stereotypical. Hazal Senkoyuncu and Bill Strom study the differences between use of video calls, texting, and voice calls for partners in long distance relationships. They find that the most effective communication in these relationships is achieved through voice phone calls.

Jenna Burkhalter, with an eye toward improving teaching praxis for students on the autism spectrum, conducts a literature review of advances in our understanding of what best enables learning for these students. As the number of students on the autism spectrum continues to increase, this research is a helpful compilation and encapsulation for teachers at all levels of instruction. Uyen Nghi Nguyen Thai also examines learning, specifically the role played by taking the

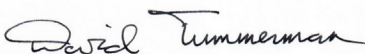
step to paraphrase what one has heard as a step in learning. Randomly assigning participants into groups, Thai uses an exam to determine whether those in the group that paraphrased what they heard recall more than those who did not. Those who paraphrased what they heard did in fact recall more. Here again, we find research with a clear path for improving teaching and learning. How wonderful.

Several of the student scholars in this volume turn their attention to international matters. Gareth Cordery demonstrates how the selection of Verdi as composer, the commissioning, and the premier of Verdi's opera *Aida* played a significant role in Egyptian politics in the middle of the 19<sup>th</sup> century. Pasha's efforts to bring European high culture to Egypt were of a piece with his efforts to modernize and materially advance the country as it gained greater freedom from the Ottoman Empire. Hadley Smithhisler's study of Brazilian Feminist Bertha Lutz reveals how through her efforts Brazil joined the Pan American feminist movement of the early 20<sup>th</sup> century. Specifically she shows how Lutz, an accomplished scientist with a flourishing career, utilized science in her advocacy that led to suffrage for women in Brazil. Emily Leavitt's prosaic analysis comparing Quebec French Rap production and Normative Quebec discourse highlights the large role that the use of intonation, accentuation, and rhythm play in making meaning through language.

Two of the contributors focus on understanding of self and human cognition. Amit Gerstein finds in our response to the COVID-19 virus a particularly Western, individualistic, and control focused pattern. What is more, that the presumed other we have made of nature will not hold, our bodies themselves are complicit in the life and transmission of the disease. Ellen Sirower applies concepts from Josef Stern's *Metaphor in Context* and other texts to demonstrate that metaphors do convey truth in the same way propositional language does so. She extends this in an analysis of how this conception of the functioning of metaphors is seen in choices made by classical musicians in their compositions.

Finally, please indulge me the space to thank my now former faculty colleagues at Monmouth College for their continued good work on the *Midwest Journal of Undergraduate Research* and the teaching and learning they engage in every day with their students. A more dedicated and determined band would be extraordinarily hard to find. I should know, because, well, I've been around!  
Sincerely,

David Timmerman, PhD  
Provost and Professor of Rhetoric  
Carthage College



**Editorial Office**

Monmouth College  
700 East Broadway Ave. Monmouth, Illinois 61462  
mjur@monmouthcollege.edu

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***Special Thanks...***

The editorial board of the *Midwest Journal of Undergraduate Research* extends a special thanks to the faculty and deans of the ACM colleges for encouraging students to submit to this issue of our journal. We would also like to thank President Clarence Wyatt, Dean Mark Willhardt, the Monmouth College Board of Trustees, and our anonymous reviewers for providing the resources to make this journal possible. Finally, we would like to thank Monmouth College alumna Caitlin Mehta Dodge (2011) for designing our logo.



## Call for Papers

The editors of the *Midwest Journal of Undergraduate Research* invite undergraduate students at any college or university to submit manuscripts from any discipline to be considered for publication in our journal's thirteenth issue (2022).

Works may be submitted at:

<http://research.monm.edu/mjur/call-for-papers/#submission-form>

## Requirements

- Abstract of no more than 200 words
- 5–35 pages in length
- 12pt Times New Roman or Calibri font, double spaced
- Name at front of manuscript only—no header
- Sequential page numbers required on all pages
- No track changes (mark-ups)
- Submit as a single Microsoft Word (.doc or .docx) file unless the text of your manuscript requires a different format (such as extensive mathematical notation, tables, or figures)
- If your manuscript includes figures or images, include a list of figures and identify the file format (e.g., JPEG, TIFF, PDF) of any graphics and images submitted
- Submissions may be from any discipline as long as they are research based
- May use MLA, APA, or Chicago Style
- Accompanying your submission, you must provide the following information:
  - Name
  - School/Graduating class
  - Major
  - Discipline of paper
  - Citation style used
  - Phone number
  - Email address
  - Mailing address
  - The name and contact information of a sponsoring professor
- Research involving human subjects requires documentation of Institutional Review Board approval or exemption.

## Deadlines

The submission deadline for the 2022 issue is January 15, 2022. Submissions received after this date will be reviewed for publication consideration in the 2023 issue.

## Submission Policy

As a journal dedicated to undergraduate scholarship, the *Midwest Journal of Undergraduate Research* only accepts submissions from current or recent undergraduate students (see below for “authorship exceptions”). For recent graduates, your submission must be received within 8 months of conferral of your first undergraduate degree.

Manuscripts that have been published or have been accepted for publication elsewhere, or are under review with another publication, are not eligible for review or publication.

“Submission guidelines of all academic journals require that authors vouch for the originality of their work and that the manuscript is not currently under review by any other publication. While the lengthy review and publication cycle of an academic journal may be frustrating, offering a manuscript to one journal at a time is compulsory. Authors will also need to guarantee to the editor that the copyright for the material is held by no other entity.”—Henscheid, Jean and Jennifer Keup. *Crafting and Conducting Research on Student Transitions*. Columbia, SC: National Resource Center for The First Year Experience & Students in Transition, 2011. (96).

## Authorship Exceptions

We understand that some faculty wish to include themselves as co-author on student projects, especially if the student’s independent work was generated from a larger project that originated with the faculty advisor. In disciplines where the practice of including the faculty advisor as co-author is customary, we will accept the faculty recognized as such. The author must provide written permission of acknowledgement from those faculty advisors being recognized as contributors or co-authors in the manuscript.

## Acknowledgments

In instances where students wish to acknowledge a faculty advisor, they may do so by prominently recognizing the faculty advisor as a contributor at the bottom of the first page of the manuscript in both the online and hard copy published versions. Here, the faculty advisor’s contribution may be specified.

For questions you may contact us at:

**[mjur@monmouthcollege.edu](mailto:mjur@monmouthcollege.edu)**

In loving memory of Monmouth College professor, David Suda, a long-time reviewer for *MJUR*

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## *About the Editors ...*

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### *Natalie Cordoba*

Natalie Cordoba graduated from Monmouth College in May 2020 with an art major and a media minor. In addition to being an editor for *MJUR*, she was also part of the Alpha Lambda Delta, Mortar Board, and Lambda Pi Eta honor societies. Natalie served as the vice president of Event Planning for Pi Beta Phi, was a violinist in the Monmouth College Chamber Orchestra, and an executive for Monmouth College TV. She is currently pursuing a Master of Fine Arts in film & television directing at DePaul University in Chicago, Illinois, with plans to pursue a career in the film industry.

### *Logan Evans*

Logan Evans, class of 2021, is a biochemistry major, who will be pursuing his PhD in chemistry in the fall. He has been accepted to several programs and will be making a decision in the upcoming months. This is Logan's fourth year with *MJUR*, and he has been working with the journal since his first semester on campus. Logan is also involved in the American Chemical Society, the Alpha Lambda Delta honor society, and the Sigma Phi Epsilon fraternity. Logan is also the current president of the Mortar Board honor society.

### *Matthew Franciscovich*

Matthew Franciscovich, class of 2021, is a physics major. Upon completion of his undergraduate degree, he plans to pursue a PhD in the field of physics. Using his studies of astrophysics and cosmology, he hopes to investigate the origin and the future of the universe further while also researching exoplanets. In addition to his work at *MJUR*, he is an executive member of the Epsilon Nu chapter of the Alpha Tau Omega fraternity, Order of Omega, Alpha Lambda Delta, an Illinois State Scholar, and a member of the Monmouth College swim team. His interests include conducting thought experiments, solving puzzles, and exploring the cosmos.

### ***Shay Hafner***

Graduating in 2023, Shay Hafner is a political science and data science double major. Along with being an editor for *MJUR*, he is the vice president of Monmouth College's Alpha Lambda Delta honor society and Blue Key honor society, a writing tutor, a Newman Civic Fellow, and a Stockdale Fellow. In his free time, Shay enjoys reading, listening to music, and spending time with his friends and family.

### ***Tyler Houck***

Tyler Houck, class of 2024, is studying business administration and accounting at Monmouth College. Tyler is a first-year associate editor for *MJUR*. He is also a member of the baseball team, executive assistant for the Business, Economics, Accounting, and Marketing club, a Stockdale Fellow, and an honors student at Monmouth. Outside of his studies, Tyler enjoys spending time with friends and family, being engaged in the community, and keeping up with his favorite sports teams.

### ***Gunnar Leaf***

Gunnar Leaf is an English major from Knoxville, Illinois, who graduates in May 2021. In addition to his *MJUR* responsibilities, Gunnar works as a writing tutor and COIL editor. He had perfect attendance all throughout junior high and high school. Gunnar's other academic interests are Spanish and political science. Outside of academia, he loves to go on walks and play cards with friends and family, as well as analyze and discuss film. After graduation, Gunnar hopes to move on to graduate school and continue to pursue his passion for writing and storytelling.

### ***Talia Long***

Talia Long, class of 2023, is a biochemistry major with a minor in computer science. She has current plans to attend veterinary school after her undergraduate education. She is co-president of Pre-Health Society and involved in Alpha Lambda Delta Honors Society, the American Chemical Society, the Stockdale Fellows Leadership Program, and the Alpha Xi Delta sorority. This is Talia's second year with *MJUR*. In free time, Talia enjoys playing tennis and spending time with her animals.

### ***Ashlyn Maher***

Ashlyn Maher graduated from Monmouth College in December 2020 with a degree in biopsychology and global public health studies. She is currently working on her master's degree in forensic psychology. Her primary research interests are psychopathy and its treatment. She lives in Monmouth, Illinois, with her husband, their German Shepherd, Lobita, and their cat, Freja.

### ***Grant Miller***

Grant Miller is a class of 2022 math and computer science double major from Aurora, Colorado. In addition to being a part of *MJUR*, Grant sings in the Monmouth Chorale and Chamber Choir and is a member of the Stockdale Fellows Leadership Program. When he's not going to class or doing homework, Grant enjoys playing games and going for walks around campus. Grant completed an internship at talentReef over the summer, and he is exploring career options for the future, including graduate school and software engineering jobs.

### ***Luna Noofoory***

Luna Noofoory is an alumna (class of '20), who majored in political science and minored in French. She was the design editor for *MJUR* as well as a copy editor. She also played the violin and the piano and was a member of the Monmouth College Chamber Orchestra. Luna has previously volunteered as a teacher for refugee children in Lebanon and plans to volunteer overseas in the future. Luna is planning on obtaining her JD in Canada and aspires to work for the United Nations. Despite having lived in five countries, she plans on traveling and learning more languages.

### ***Grace Simpson***

Grace Simpson, who is graduating in May 2023, is an environmental studies and sustainability major with plans to have a minor in Global Food Security. This is her second year with *MJUR*. Grace is also involved with the Stockdale Fellows Program, Alpha Lambda Delta, speech tutoring, and the sorority Kappa Kappa Gamma. In her free time, Grace enjoys reading and doing service projects with her Kappa sisters and fellows.

### ***Hadley Smithhisler***

Hadley Smithhisler graduated summa cum laude from Monmouth College in 2020 with degrees in history and French, and she is currently a first-year law student at the Indiana University Maurer School of Law. During her time at Monmouth College, Hadley worked as an editor for the *Midwest Journal of Undergraduate Research* for four years and happily served as its coordinating editor during her senior year. Passionate about public interest work and policy, Hadley hopes to use her law degree to help reform the criminal justice system when she graduates from law school in 2023.

### ***Karisa Warren***

Karisa Warren, graduating May 2022, is an English major from Galesburg, Illinois. She spent time at Carl Sandburg College before Monmouth College, getting her Associate of Arts degree and Emergency Medical Technician license. In addition to *MJUR*, Karisa works at a bakery. While at home, she spends her free time with her husband, either playing video games or taking care of their turtle, Captain Mustard; gecko, Sol; and fish, Captain Peanut Butter. After graduation, they plan on moving to Europe, where she wants to be an editor in the hopes of improving people's writing skills and getting them that much closer to their dreams.

### ***Shannon Wilbourne***

Shannon Wilbourne, class of 2022, is studying accounting and Spanish at Monmouth College. She is a Goldsborough Scholar and member of the Stockdale Fellows Leadership Program. Following graduation, Shannon aspires to live and work abroad. Shannon's interests include learning languages, reading, and tending to her houseplants.