

Newsletter



FALL 2023

NEBRASKA ACADEMY OF SCIENCES



MARK YOUR CALANDARS

March 1- Scholarship
Application deadline
Application materials and
information can be found at
neacadsci.org/adne

APRIL 19TH, 2024- ANNUAL
SPRING MEETING, UNL EAST
CAMPUS (NEW LOCATION)

Calling all science buffs!
Prepare to be amazed. We
can't wait to share our
upcoming events across the
state. Stay in the know by
following us on Facebook.
<https://www.facebook.com/NebraskaAcadSci>

NAS offices are on the move
to make way for Morrill Hall
renovations. During the
transition, you can find us at
Bessey Hall on the UNL City
Campus. And don't worry, our
contact info stays the same.




PRESIDENT'S NOTE

Happy Fall! As the seasons change, we also are experiencing a change at NAS. On behalf of NAS, I would like to extend a heartfelt thank you to Kimberly, our Outreach Coordinator. Kimberly is moving on from NAS for new adventures and we wish her the very best of luck. Behind the scenes Kimberly worked to revise our webpage, reinstate our newsletter, organize and implement successful Annual meetings, and help to implement new agenda items for NAS such as science field trips. Kimberly will no doubt take her excellent science and organizational skills and benefit our community in her future endeavors. Thank you Kimberly!

Cont. on next page...

Would you, or someone you know be interested in joining the NAS Executive Committee? NAS is accepting nominations for the next President-Elect as well as the next Secretary to join the board in the spring of 2024. Applications are due to the NAS office by February 16th, 2024.

Letter from the President



We are welcoming Kerri Schnase-Berge our new executive secretary. Kerri comes to NAS with years of science and non-science community engagement and fundraising experience. She is committed to advancing NAS's mission to promote science education and activities across our state. We look forward to what the new seasons will bring with Kerri at NAS.

To emphasize the importance of research in our state, I would like to feature a Nebraska researcher publishing in our Transactions of the Nebraska Academy of Sciences each quarter. This quarter, Dr. MaryAnn Vinton from Creighton University is our featured scientist. Dr. Vinton is a Professor of Biology and Program Director of the Environmental Science Program at Creighton University. Dr. Vinton is a native Nebraskan whose family settled in the Sandhills in the 1888 and has ranched in the area since that time. Dr. Vinton recently published her work with a student researcher Gabrielle Baker entitled "Using satellite imagery to compare land cover and water resources in two counties of the Nebraska Sandhills" in the Transactions of the Nebraska Academy of Sciences 42 (2022), 23-32

DOI 10.32873/unl.dc.tnas.42.4) . The importance of the work presented in Baker and Vinton (2022) can not be understated. The Nebraska Sandhills comprise the most intact grassland habitat in the world. Water is an important resource for the Sandhills ecosystem which includes heavy land use for low intensity cattle grazing. As extreme weather events and drought become more common in the Sandhills, it is important to increase our understanding of how the Sandhill water resource responds to environmental change and land use. In their study, Baker and Vinon (2022) compared two adjacent, similarly sized, counties, Grant and Hooker, in the central Sandhills that differ in the amount of naturally occurring, ground water-fed meadows during the period 2002-2019, spanning wet and dry years. Their data showed that different Sandhill counties have contrasting water resources. An abundance of naturally occurring wet meadows were identified in Grant County, whereas Hooker County has fewer wet meadows and more center pivot irrigation systems. During drought years, there was a decline in wet meadows and an increase in barren ground and an increase in center pivot irrigation systems. In a changing climate, with potentially more extremes in precipitation, the diversity of strategies exemplified by these two counties will be important to inform adaptative responses and will impact the Sandhill ecosystem.

The Transactions of the Nebraska Academy of Sciences and Affiliated Societies can be an excellent location to feature your work. See <https://digitalcommons.unl.edu/tnas/> for more information.





A New Logo for Nebraska Academy of Sciences

Symbolism

The basic shape of the state of Nebraska is clearly shown in the foreground. The hexagon represents science. It may suggest a molecule such as a benzene ring in biochemistry or a mineral in geology.

Colors

The colors give a sense of ecology and environment. Blue represents water and green represents vegetation.

Type

“Nebraska” is written in a serif font to give the word a sense of style. “Academy of Sciences” is in a simple sans serif font since science is direct and to the point.

Bold

The basic shapes and clear lettering give the logo a bold appearance. This implies a sense of excellence and achievement.

Simple

The best logos are simple. This ensures that the logo can be used for the widest range of applications. It looks good in color, black, or white. It will work with a wide variety of background colors. It can be scaled from very small to very large and it will always be clear and easy to understand. It can be readily applied to many items, such as letterhead, business cards, posters, awards, clothing, websites, etc.



**The Nebraska
Academy of Sciences
had 68 full-text
downloads this month!**

NAS Transactions

Submit Scientific Contributions The Nebraska Academy of Sciences Transactions accepts contributions of original research and about Nebraska and by Nebraska scientists

digitalcommons.unl.edu/tnas/

Please consider submitting manuscripts for publication. Please contact nebacad@unl.edu for more information.



Hello NAS community,

I'm Kerri Schnase-Berge, your new Executive Secretary. My background includes 10+ years of experience supporting executive level professionals in higher education and government at the local, state, and federal level. My work has also included fundraising and working as a liaison to bring together like-minded groups toward a common goal. I look forward to serving you and helping to elevate the NAS profile. I am excited and honored to serve in this chapter of the rich history of the Academy.



My top priorities include increasing awareness of the National Academy of Sciences across the state and raising funds to support our important work. I'm also committed to maintaining and expanding our relationships with other scientific organizations and communities throughout our region.

I'm grateful for the warm welcome I've received from Kim and the Board, and I'm eager to hear your feedback and ideas as we move forward. Please don't hesitate to reach out to me at the office or via email at kschnase-berge2@unl.edu to say hi or to talk with me about your ideas for the Academy.

Best regards,
Kerri Schnase-Berge



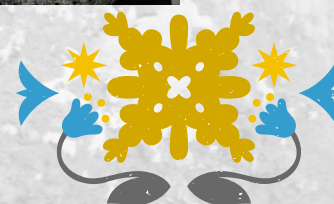
Dear NAS Membership,

It has been an absolute pleasure contributing to the NAS membership over the past two years. I have thoroughly enjoyed the opportunities granted to me during my tenure here. It has been a privilege to collaborate with such a talented and motivated group of individuals who share a common vision of advancing science and creating a positive impact on society. While I will undoubtedly miss working with NAS, I can't wait to see what new initiatives and accomplishments NAS can make in the coming years.



Thank you for everything.

Sincerely,
Kimberly Carroll Steward





News from our Science Affiliates

NEBRASKA ENVIRONMENTAL EDUCATION CONFERENCE



Ponca State Park
Ponca, NE
FEB 28 & 29, 2024



*Braiding Connections through
Nebraska Environmental Education*



Registration for this conference will open November 1, 2023. Be on the lookout for future communication on proposals, registration and more!

More details will be shared soon and will be found on [NACEE's conference landing page here](#), and also on the [conference Facebook event](#).

For questions about the conference, please contact:

Amber Schiltz or Delanie Bruce at conference@nacee.org

Enroll in PopEd's Online Graduate Course

- Earn 3 graduate ED or SCED credits from Adams State University and/or 45 professional development clock hours.
- Gain knowledge and lesson plans for teaching how people interact with the environment and society - great for 6-12 science and social studies educators!
- Offered as an 8-week fall course and a 4-week accelerated summer course.

OVERVIEW WELCOME! 	MODULE 1 HISTORY OF POPULATION GROWTH AND CARRYING CAPACITY 	MODULE 2 A WORLD IN TRANSITION
MODULE 3 OUR DEMOGRAPHIC WORLD 	MODULE 4 UNDERSTANDING GLOBAL INEQUITY 	MODULE 5 OUR FINITE ENVIRONMENT
MODULE 6 LIFE IN THE ANTHROPOCENE 	MODULE 7 LOOKING TOWARD THE FUTURE: UNDERSTANDING SUSTAINABLE DEVELOPMENT 	MODULE 8 PLANTING TREES AND FINAL PROJECT

The [registration for our 8-week fall course](#) is now open. The course begins on October 10th and ends on December 8th.

For more information, visit: PopulationEducation.org/gradcourse



Dr. Anthony Calomino, space nuclear technologies lead for NASA's Space Technology Mission Directorate, shares an overview of NASA's strategic approach to two critical nuclear technology capabilities: fission surface power and space nuclear propulsion.

Please pass this along to colleagues and students that may be interested at your institution as well as affiliate institutions and industry partners.

October 20, 2023 at Noon ET.

Microsoft Teams meeting
Join on your computer, mobile app or room device
[Click here to join the meeting](#)
Meeting ID: 217 604 748 277
Passcode: bWYz3n



**Solve
for Tomorrow**

Together for Tomorrow!
Enabling People
Education for Future Generations

**Inspire the world changers
of tomorrow, today.**

Ignite passion for STEM. Uncover potential to create real change.

Since 2010, the Samsung Solve for Tomorrow Contest has awarded \$25 million in Samsung technology and classroom materials to more than 3,500 public schools in the United States. Solve for Tomorrow is designed to address the growing education gap and career readiness shortage in STEM skills in the U.S.

Apply by **October 27** at [Samsung.com/Solve](https://www.samsung.com/solve)
to **WIN** a share of **\$2 million*** in prizes!

*Based on estimated retail value

\$2,500 State Finalists <small>(300 State Finalists)</small>	\$12,000 State Winners <small>(50 State Winners)</small>	\$50,000 National Finalists <small>(10 National Finalists)</small>	\$100,000 National Winners <small>(3 National Winners)</small>
Application Deadline: October 27, 2023			

SAMSUNG

Learn more and apply by October 27 at
[Samsung.com/Solve](https://www.samsung.com/solve)

STEM
EXPERIENCES STUDY

Seeking All STEM Majors
Take **20 minutes** to tell us about your recent STEM experiences

Who should participate?
STEM Majors
• Undergraduate or graduate students studying in a STEM field (must be 18 or older)

Are there risks?
• No, all surveys are confidential
• No, we do not ask about any personal or illegal topics

Do you want more info?
• Contact the Goldstream Group at info@goldstreamgroup.com
• visit: www.spacegrantevaluation.com

Receive \$25!
What are the benefits?
• Receive a \$25 gift card for completing an online survey
• Reflect on your STEM education journey

Complete your survey here!
Scan the QR Code:
Use the web address:
<https://www.research.net/r/SpaceGrantEval>

This project supports STEM (Science, Technology, Engineering, and Mathematics) workforce development by studying how authentic research experiences translate into professional success. The study considers authentic STEM research experiences such as but not limited to presenting at conferences; engaging in internships; collaborating with scientists, engineers, and researchers; or engaging in research. Professional success refers to STEM self-efficacy, STEM identity, earning a degree in a STEM-related field, or employment in a STEM field.

The STEM Experiences Study is funded by a NASA grant entitled: Small State Space Grant Evaluation. The Principal Investigator is Dr. Denise Thorsen. The University of Alaska Fairbanks IRB Number is 1669403





OPEN TO GRADES
6-12
WORLDWIDE

2023-2024 WORLD OF 8 BILLION Student Video Contest

In a short video, explain how population growth impacts one of the following global topics and offer an idea for a sustainable solution.



CLIMATE MIGRATION



HEALTH



INVASIVE SPECIES

PRIZES

HIGH SCHOOL
FIRST PLACE \$1200
SECOND PLACE \$600
HONORABLE MENTIONS \$300

MIDDLE SCHOOL
FIRST PLACE \$600
SECOND PLACE \$300

INTERNATIONAL BY REGION
HONOR 6 Prizes
STATE HONOR
50 Prizes

SUBMISSION DEADLINE IS MARCH 5, 2024



[VIEW FULL CONTEST DETAILS](#)

NSTA KC23 | OCT. 25-28

<https://www.nsta.org/kc23>

Level up your science and STEM teaching this October at the premier professional learning event of the fall.

Whether a new teacher, veteran educator, or somewhere in between, NSTA KC23 is your destination for personal and professional growth with an unparalleled program featuring visionary speakers, compelling sessions, interactive workshops, unique networking opportunities, and more!

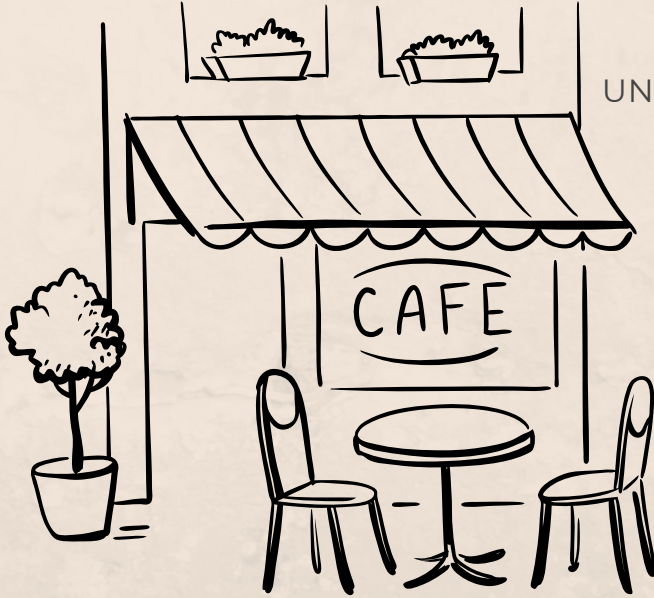
Location:

Kansas City Convention Center • Kansas City, MO

Customize your conference experience at <https://www.nsta.org/kc23>



Science Cafe



UNK Science Café schedule for this academic year is below.

Cunninghams Journal

15 W 23rd St,

Kearney, NE 68847

5:30-6:30 p.m.

Katherine Moen – [contact with questions](#)

- **October 30** – Drs. Carlson and Biggs (King Tut)
- **November**-TBD
- **February 26** – Dr. Mary Harner (Water Conservation and Communicating with the public)
- **March 18** – TBD/Induction banquet speaker
- **April 22** – Undergraduate Presentations (four presentations, 10 minutes each)

LAST CALL TO REGISTER!

2023 Bio Nebraska Annual Meeting

Thursday, October 26, 2023

4:00 PM to 7:00 PM

Lied Commons

301 N 12th St.

Lincoln, Nebraska

[REGISTER](#)

 Bio Nebraska

2023 Annual Meeting

October 26, 2023
Lied Commons
Lincoln, Nebraska



STEM Research Grants provide support to teachers engaging their students in grades 6 – 12 in authentic scientific research. Teachers can apply for up to \$5,000 to purchase specialized equipment or \$1,000 in preselected equipment including Arduino starter kits, freshwater monitoring equipment, and PocketLab sensors. Over 6 years, \$775,000 has been awarded to 367 teachers. Priority consideration is given to schools that support students who are underrepresented in STEM or those who come from low-income communities.

You can learn more about the program and find the link to apply here:
<https://www.societyforscience.org/outreach-and-equity/stem-research-grants/>

Have questions? Please email Teachers@societyforscience.org

Enjoy the rest of 2023! Please feel free to submit newsletter ideas, stories and announcements for our Winter newsletter that will come out after the first of the year.