



STEM TRAIL Center

April 2020, Volume 1, Issue 9

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Turning Lemons into Lemonade

We hope that you and your loved ones continue to find some sort of new normalcy during these trying times. Maybe you have found a new hobby, or have found the outdoors to be your new best friend. Maybe you have relished the joy of a constantly warm cup of coffee at your desk for zoom after zoom. Whatever it is, we hope you are well! Remember, we are here to be as dynamic and supportive as possible to you while we all work and learn remotely.

We aim to continue this support to students, faculty, staff, and stakeholders outside of UNO over the summer with conversational communities of practice—such as the newly active one surrounding *Youth Programming*, a timely addition when outreach takes a new look for summer 2020.

When we write to you next month, we will have closed out the 2019 – 2020 academic year very differently than how we started it. We have welcomed the new partnerships throughout our first launch year, especially the diversity of collaborators with the Center! As the shift to this summer approaches, please know that we remain active and aim to support your goals. We continue to host ‘camaraderie hours’ of varying themes (remote teaching, research project management, and grant writing support) through the summer.

We join you all in acknowledging graduates for 2020—see the first of several highlights showcasing the outstanding work of UNO students.

Finally, our comprehensive Strategic Plan is always accessible on our website, and we continue to move dutifully and completely through that plan. Additionally, we’ve welcomed the feedback that you have shared with us, and have some additional activities planned to kick off in Fall 2020. Stay tuned for our year-end report to see the unveiling of those ideas!

**We exist to elevate
human potential
through lifelong
learning**

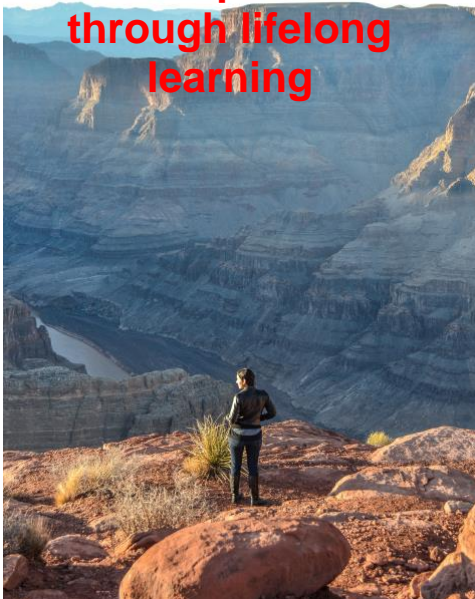


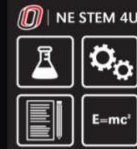
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Award Notices and Exciting Highlights

Graduating Seniors 2020

550 Total Hours of programming at minimum

provided by our **five seniors**, and offered to both middle and elementary youth in the NE STEM 4U program, during their time in the program.



Caelyn Armshaw

Time in NE STEM: 6 Semesters

Degree: Major in Biotechnology with minors in Spanish and Chemistry.

Plans: Caelyn is starting **Medical School** at **UNMC** in August 2020. She plans to become a family practice physician or pediatrician in underserved areas. Right now Caelyn is especially considering rural primary care as well as global medicine.

"NE STEM is probably the most impactful thing I've done throughout my collegiate career. In addition to the opportunities for professional development and fellowship, being a mentor and officer has helped me to identify my passions and grow as an individual. The biggest piece of advice I give to my pre-med mentees is to choose 'extracurriculars' that enrich them as a person, not just their resume. NE STEM is the reason I give that advice."



Savana Nawojski

Time in NE STEM: 6 Semesters

Degree: Major in Molecular and Biomedical Biology with a minor in Chemistry

Plans: Savana is starting **Medical School** at **UNMC** in August 2020!

"NE STEM has significantly impacted my professional development. I have learned that you have to hold yourself to the highest degree of professionalism when working with youth. This instills what the expectations are for them. On that same note, the relationships and 'a-ha' moments that you build/witness with the students have been the most rewarding aspect of NE STEM."



Michael Stinson

Time in NE STEM: 3 Semesters

Degree: Major in Biology with a Chemistry minor

Plans: Michael is currently studying for the MCAT and plans to apply to Medical School in Fall 2020.

"NE STEM was one of my favorite parts of my week. Being able to grow with the kids over the semester and see their excitement for progress in STEM is the real prize in my opinion. If I was able to positively impact even one student, that is all that matters to me."



Troy Suwondo

Time in NE STEM: 3 Semesters

Degree: Major in Biology with a Chemistry minor (Pre-Medicine)

Plans: Troy's next step is medical school where he hopes to become a physician!

"NE STEM made a positive impact on me, as it helped me become a better professional. Talking and teaching kids every week made me comfortable in a public speaking setting. Meetings were also very insightful and I learned a lot more about disparities and things to keep in mind when pursuing my future goals"



Zarak Gandapur

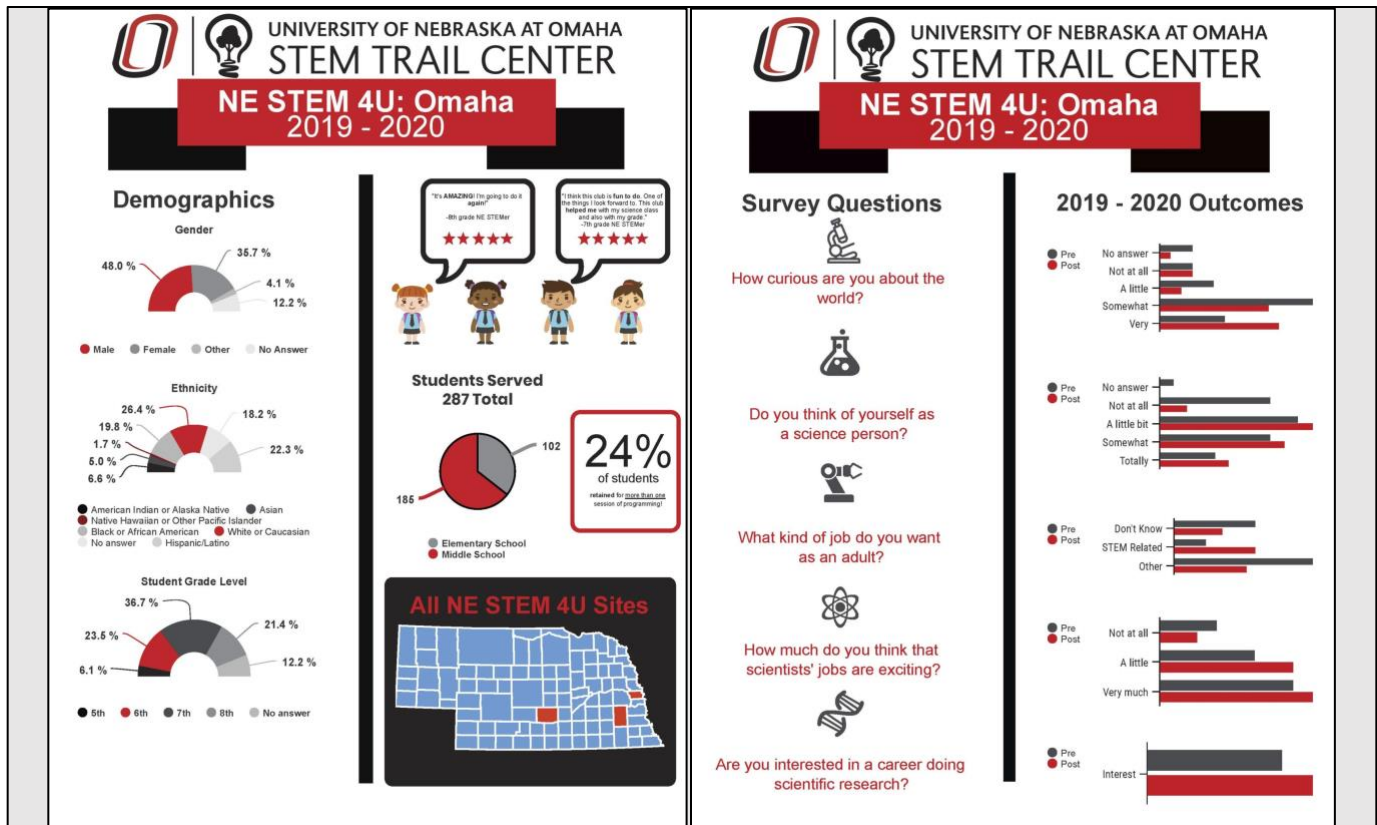
Time in NE STEM: 1 Semester

Degree: Major in Biology with a Chemistry Minor.

Plans: Zarak is taking the MCAT this summer and plans to apply to UNMC's medical school program in the next cycle.

"NE STEM has created a platform and an opportunity for me, where I can demonstrate my leadership skills in the fields of science and technology to my fullest potentials. It has exposed me to an environment where not only I can build strong relationships with the students, but also have myself responsible to educate them about STEM and its huge practical impact on the advancement of science that we rely on to fight against the struggles around us."





Join our mailing list!

STEM TRAIL Center: This listserv goes out related to all those interested in STEM TRAIL Center activities.

unostemtrailcenter@unomaha.edu

Email: Nik at: nstevenson@unomaha.edu

UNO STEM Colleagues: Networks among faculty interested in STEM related opportunities:

STEMColleagues@unomaha.edu

Email: Jim at: jbwolfe@unomaha.edu

WiSTEM Pro^2: Gender equity, advancement, diversity Wistempro2

<unowistempro2@unomaha.edu>

Email: Kelly at kgomezjohnson@unomaha.edu

Omaha STEM Ecosystem: Connects to city STEM collaborators

Moderated by Julie Sigmon

To join email: julie.sigmon@omahazoo.com



Transforming the Conversation about Teaching Evaluation in Higher Education: Thoughts from the National Academies' Roundtable on Systemic Change in Undergraduate STEM Education

Tuesday, May 19th, 2020 (Rescheduled from March 24th)
11:00 am PT | 12:00 pm MT | 1:00 pm CT | 2:00 pm ET

Presenters: Ann Austin (Michigan State University), Noah Finkelstein (University of Colorado Boulder), Kerry Brenner (National Academies), and Dea Greenhoot (University of Kansas)

Did you miss the first webinar from the NAS Roundtable team on the future of STEM education?
View it here: bit.ly/ASCNwebNASFuture

Register now! bit.ly/ASCNwebNASTransform

Message from Omaha STEM Ecosystem Director, Julie Sigmon

The Omaha STEM Ecosystem (OSE) is a collective impact organization, founded in 2016 to facilitate the development of a strong and vibrant STEM-focused workforce in the Greater Omaha community. Our efforts have focused on aligning educational curriculum and learning experiences with critical workforce skills and thus building the foundation for high quality STEM pathways accessible to all.

During these foundational stages, the OSE focused on priorities laid out in the document *Charting a Course for Success: America's Strategy for STEM Education* around strategic partnerships as well as transparent and accountable operations. OSE leverages strategic partnerships with over 800 stakeholders, which include 12 school districts/private schools as well as key business/industry leaders. The administrative structure of the Ecosystem itself represents a strategic partnership between the University of Nebraska at Omaha and Omaha's Henry Doorly Zoo & Aquarium. The OSE strives to operate with transparency and accountability by creating a constellation of strategic committees that prioritized communication by establishing social media sites, defining success metrics, and hosting in-person community conversations.

Other OSE committee accomplishments have moved OSE toward the remaining priorities of the White House STEM Education Strategic Plan to both engage students in converging disciplines and build their computational literacy. OSE is working on applying best practices for quality STEM programs, encouraging work-based learning/training collaborations, and supporting efforts to update the Nebraska content standards for computer literacy.

In co-leadership of the [Omaha STEM Ecosystem](#), the University of Nebraska at Omaha (UNO), considers the *America's Strategy for STEM Education* document as key in its STEM engagement efforts with the Omaha community and beyond.

The document is frequently an agenda item at the monthly STEM Leadership Team meetings, which involve nearly 70 faculty and staff across all the UNO colleges. It also helps to inform UNO's new [STEM Teaching, Research, and Inquiry-Based Learning Center](#), which coordinates and operationalizes many UNO STEM initiatives.

Further, the report is discussed, referenced and helps to guide the "broader impacts" of many of the NSF, and other grant proposals to federal agencies. As UNO faculty begin to consider initiatives, and potentially funding proposals, they are encouraged to use the report, to frame their conceptualization, as well as create one page "logic model" informed by elements of the report. Due to its emphasis on STEM Ecosystems and other community collaborative structures, the report has helped faculty to become increasingly aware of how to genuinely engage with such community-based structures as they build their STEM initiatives. The report has been a critical catalyst to increased STEM-related community engagement, as is so critical within our metropolitan university context.

Omaha's Henry Doorly Zoo and Aquarium (OHDZA), in co-leadership of the Omaha STEM Ecosystem, is helping to increase the community's STEM workforce by providing on-the-job shadowing and internship opportunities. The *America's Strategy for STEM Education* report has reinforced the importance of this STEM education work and is helping to guide the education leadership in making informed decisions on how OHDZA can offer enriching educational experiential opportunities for both students and educators. These work-based opportunities are developing STEM skills and literacy in the participating students as well as giving educators unique work-based STEM scenarios to use in their curriculum.

<https://www.whitehouse.gov/wp-content/uploads/2018/12/STEM-Education-Strategic-Plan-2018.pdf>

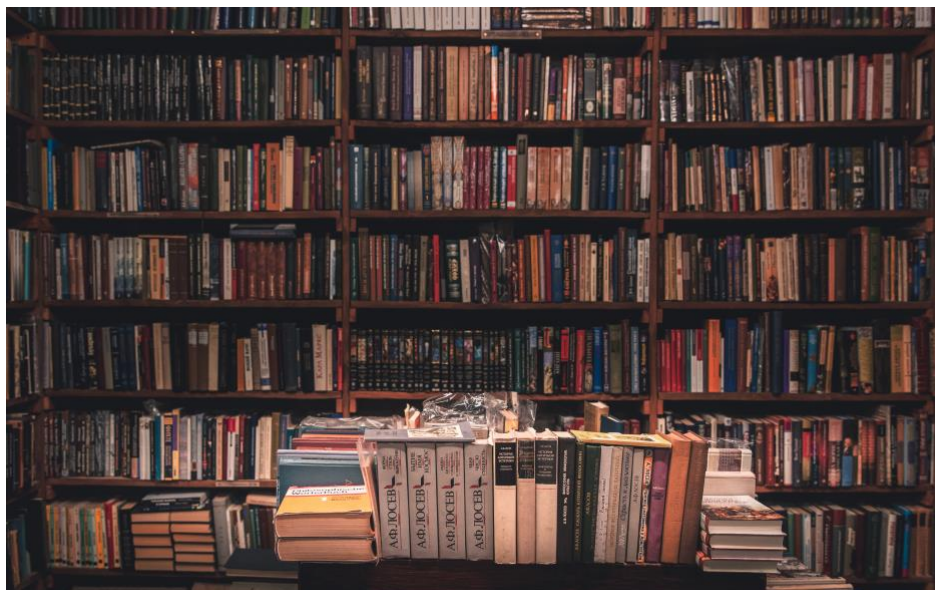


Photo
by Stanislav
Kondratiev on
Unsplash

Great resources to share, from our desks to yours:

Press Releases or Articles:

Seven NSF-supported resources perfect for at-home learning: <https://beta.nsf.gov/science-matters/seven-nsf-supported-stem-resources-are-perfect-home-learning>

Materials for the informal STEM education community: <https://www.informalscience.org/>

NU System to offer free tuition to certain Nebraska students in response to COVID-19: <https://www.unomaha.edu/news/2020/04/nu-system-free-tuition-students-who-qualify.php>

All about Face Masks: When and How to Wear Them: <https://www.unomaha.edu/news/2020/04/all-about-face-masks-when-and-how-to-wear-them.php>

Discipline-based Education Research (National Academies Press): <https://www.nap.edu/catalog/13362/discipline-based-education-research-understanding-and-improving-learning-in-undergraduate>

Books:

- *The Elements of Mentoring* by W. Brad Johnson and Charles R. Ridley
- *Relentless: From Good to Great to Unstoppable* by Tim S. Grover
- *Extreme Ownership: How US Navy Seals Lead and Win* by Jocko Willink and Leif Babin
- *Driven by Difference: How Great Companies Fuel Innovation Through Diversity* by David Livermore
- *The Coaching Habit* by Michael Bungay Stanier
- *Thinking, Fast and Slow* by Daniel Kahneman

Do you have a favorite book or article? Please share with us on Twitter @UNOSTEMTRAIL to be featured here