



STEM TRAIL Center

March 2020, Volume 1, Issue 8

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Photo by [sydney Rae](#) on [Unsplash](#)

A Note During Remote Instruction and Research

We hope that you and your loved ones are doing well given the current, uncertain times that we're facing. We aim to be as dynamic and supportive as possible to you while we all work and learn remotely.

We know that the needs for support for teaching and research will be changing on sometimes a daily basis. Some of the more recent comments and questions that we have fielded surround a few key areas:

- 1) Support for undergraduate and graduate research students: how can we keep them supported and in communities of practice (such as their traditional research lab) while remote?
- 2) How do I take ___(content/idea/process) from the wet-bench to the remote learning environment?
- 3) Do I have a unique opportunity to investigate impact on student learning during this unplanned, remote shift? If so, how do I implement that?
- 4) I have children at home who need hands-on activities that match NGSS, what resources do you have?

If you have similar questions, or are simply shifting some of your goals given the current, transient environment, please join us during an upcoming Camaraderie Call. All are welcome. We're offering 5-hours of call in time a week focused on supporting your needs, individualized or as small groups. Similarly, we will continue programming on the 3rd & 4th Fridays of April via Zoom, but other activities are postponed.

We wish you perfect health and well-being.

We exist to elevate human potential through lifelong learning.



Upcoming Opportunities & Events

Award Notices and Exciting Highlights

Planning a grant submission for 2020? Reach out with any requests early: unostemtrail@unomaha.edu

Are you submitting your first proposal and need help with a Logic Model, core components of a grant, or other formatting assistance? Do you need help finding partners for your Broader Impacts for an NSF proposal? Are you looking for businesses that would also be interested in collaborating because of shared interest in a platform, software, or new technology? Reach out!

Maybe you've spent 2019 developing a new technology (educational, technology-based, or otherwise) and you would like help navigating the intellectual property process, we're here to help connect you with the right groups for your exciting next steps! (Note: Center takes *no* ownership in IP, nor new companies, we aim to instead serve as a network to connect resources)—**Be sure to join in the April 24th program discussing Intellectual Property!**

Remember the Friday Seminar Series!
Join us on Fridays at noon

*** NOTE: 1st and 2nd Fridays post-poned, 3rd & 4th moved online via Zoom link; See web for most updated information***

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 Pro²: 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



The 7 Habits of Highly Effective STEM Department Chairs

Wednesday, April 22, 2020

1:00 pm PT | 2:00 pm MT | 3:00 pm CT | 4:00 pm ET

Presenters: Bob Hilborn (American Association of Physics Teachers) and David Craig (Oregon State University)

Register now! bit.ly/ASCNwebHabits



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

On March 3, a group of educators from across the Omaha metro area, met for a captivating evening at the UNO Biomechanics Research Building for the 4th in the Math Series sponsored by the OSE and UNO Mathematics Department. Educators and preservice teachers enjoyed a tour of the Biomechanics Research Building, learning the math and science applications from the graduate student's research projects. Biomechanics is the study of the forces that act on the body and the effects they produce. Some of the research projects encompass sports performance, prosthetic design, gait analysis and neuromuscular control. **Unfortunately the Math at Union Pacific Railroad previously scheduled for April 6th, 4:30 – 6:30 has been postponed in response to COVID-19.**



A note from Nik Stevenson, STEM Professional Development and NE STEM 4U Program Coordinator:

To all those that have worked so diligently in providing student outreach programming during the 2019-2020 year, thank you so much for all your energy, passion, and desire to help our metropolitan youth! It is unfortunate that it was cut short, and so now we are probably all asking ourselves the question, “So now what?” It is frustrating, frustrating for everyone and we at the STEM TRAIL Center acknowledge that. Now more than ever it is important to stay-engaged even if your program is a) cancelled or b) post-poned. A Zoom call is a great option to check in with your team—casual check-ins about how everyone is holding up is a great start. There are positives in every situation and the positive here is that it gives us all a chance to reflect on our outreach and programming. How can it be better? What can we improve on? What was that idea I had that I never got around to exploring? Maybe use this time to work with your team or your partners to figure out ways that you can bring your programming to the next level. This is an opportunity for growth so that when the doors open again we are ready to provide high-quality student outreach programming.

In conclusion, I am reminded of a famous word that I have come to find a lot of value in—Ubuntu, or otherwise known as ‘I am because of who we all are.’ Student outreach is a collective effort, and as such it is important for us all to stay engaged during this time. So, don't hesitate to reach out and have a conversation with your staff or your partners. Or, maybe aim to expand your network and see how you can collaborate with someone new! That next “best thing” could be an email, a phone call, a Zoom meeting away!



Great resources to share, from our desks to yours:

Press Releases or Articles:

NSF Appropriations News, 2019:

<https://www.nsf.gov/about/congress/>

STEM Congressional Highlights, 2019:

<https://www.nsf.gov/about/congress/nsf-congress-highlights.jsp>

Graduate STEM Education for the 21st Century (National Academies Press):

<https://www.nap.edu/catalog/25038/graduate-stem-education-for-the-21st-century>

English Learners in STEM Subjects, 2018 (National Academies Press):

<https://www.nap.edu/catalog/25182/english-learners-in-stem-subjects-transforming-classrooms-schools-and-lives>

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
- *No Ego: How Leaders Can Cut the Cost of Workplace Drama, End Entitlement, and Drive Big Results* by Cy Wakeman
- *The Half Has Never Been Told: Slavery and the Making of American Capitalism* by Edward E. Baptist
- *Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do* by Claude M. Steele
- *Improving How Universities Teach Science* by Carl Wieman
- *The Captain Class: A New Theory of Leadership* by Sam Walker
- *Make It Stick* by Brown, Roediger III, & McDaniel

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