### **STEM TRAIL Center**

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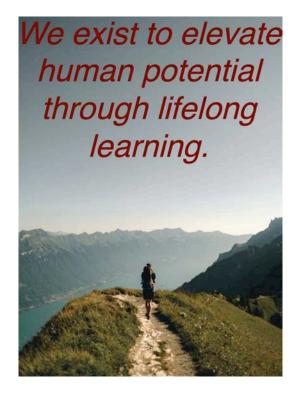
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### STEM TRAIL Center Announced as UNO Big Idea

A very exciting update in February was the selection of the STEM TRAIL Center as a "Signature Area of Excellence" or "Big Idea" for the UNO campus. We are one of 6 core areas on which the University has endorsed as a priority area with state-aided backing. While our areas of research and teaching excellence have helped us to be where we are today, the University's investment in us will propel our programming and reach to an entirely new level.

This investment by UNO challenges us to push the envelope on the next STEM innovations—we need your help to ensure the success of our students, continue to innovate and deliver high impact outcomes in research, and be on the leading edge of effective teaching practices.

If you haven't yet had the chance to attend one of our events, then please join us at an upcoming event. We'll close out this academic year with countless opportunities for professional development for undergraduates, community partners, faculty/staff, and graduate students. Join us for an event that aligns with your interest and schedule (see page 2 & 3 for upcoming events).

Finally, we know that we're still a very new entity and we'll continue to spread the message of our priorities and initiatives. Perhaps you'd like a customized message for your group, unit, or team? Just let us know and we would be happy to share with you some opportunities for collaboration: <a href="mailto:unostemtrailcenter@unomaha.edu">unostemtrailcenter@unomaha.edu</a>.

### **Upcoming Opportunities & Events**

## NYT Best Selling Author and Dean of Arts & Sciences Headline Creativity Discussion

Dean David Boocker (UNO College of Arts & Sciences) hosted a discussion of creativity across the STEM and Humanities disciplines with New York Times Bestselling Author, and MIT Professor Alan Lightman. Thanks to Steve Langan, Director of the UNO Medical Humanities Program, for hosting Dr. Lightman to Omaha.

Participants gained insights into the intersection of disciplinary fields surrounding the need for creativity. Importantly, creativity is core to all fields, and can be observed in a variety of ways. Key highlights of creative writing in humanities and STEM disciplines, as well as the need for philosophical discussion an decision-making across the disciplines were included.



#### Remember the Friday Seminar Series!

Join us on Fridays at noon, usually in the Thompson Alumni Center's first floor meeting space for weekly programming. See calendar to RSVP and for location updates. For event parking passes: tinyurl.com/UNOSTC19

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, March 24, 2020 11:00 am PT I 12:00 pm MT I 1:00 pm CT I 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)

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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





### The 7 Habits of Highly Effective STEM Department Chairs

Wednesday, April 22, 2020 1:00 pm PT I 2:00 pm MT I 3:00 pm CT I 4:00 pm ET

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

Register now! bit.ly/ASCNwebHabits

### Teaching Practices Workshop Series: Award Winning Presenters headline April workshops

Presenters: Drs. Sarah Zappe and Stephanie Cutler
The teaching practices workshop series is co-sponsored with the UNO Center for
Faculty Excellence
April 2<sup>nd</sup> and 3<sup>rd</sup>, 2020

#### These award-winning presenters will deliver 3 workshops:

**Thurs, April 2<sup>nd</sup>, 2020: 5:30-7pm** @ Holland Performing Arts Center: *Teaching to Promote a Growth Mindset* 

Fri, April 3<sup>rd</sup>, 2020: Noon-1:30pm @ UNO Thompson Alumni Center: *Do you want to build a workshop? A guide to building effective, interactive, and fun workshops* 



Sarah Zappe, Ph.D. is an Educational Psychologist specializing in applied educational testing and measurement. She also serves as Director of Assessment and Instructional Support in the Leonhard Center for the Enhancement of Engineering Education and is a Full Research Professor in the College of Engineering at Penn State.



Stephanie Cutler, Ph.D. is an Engineering Education Assistant Research Professor and the Assessment and Instructional Support Specialist in the Leonhard Center at Penn State.



March 4, 2020, 10am

Amie Sommers, PhD Candidate, and Nik Stevenson (Research Technologist) attended a two-day long workshop via the Racial Equity Institute, thanks to our generous partners, *Collective for Youth.* 

Nik Stevenson will provide a short discussion of the training, including questions to consider in teaching and learning at a STEMinar on Wednesday, March 4<sup>th</sup>, AH229. All are welcome.

### WORKSHOP ON INQUIRY-BASED LEARNING IN MATHEMATICS & STATISTICS

Inquiry-Based Learning (IBL) is a form of active learning in which students engage in the practices of mathematicians: sense-making, proving, example exploration, conjecture-making, revising, listening, sharing, collaborating, persevering, and facing uncertainty. While courses may look different, they rely on four core principles ("pillars") illustrated in the graphic below. Following these principals, IBL courses enhance student learning by providing opportunities to learn math through collaborative struggle, rather than simply watching someone else do it. Join us for a workshop, with stipend support, May 13. stemtrail.unomaha.edu/register

### Meet our new STEM TRAIL Center Staff Assistant, Dena Lund! From Dena:

I was born and raised in the Florence area of Omaha, Nebraska. I then spent several years out west, living and working in California, Nevada, Idaho, and Montana before returning to my beloved home state. During my time in Montana, I attended the University of Montana and earned my Associate degree in Business Management. I live with my husband, two lab retriever mixes, and a cranky cat. We are currently busy restoring my childhood home to its former glory. I have a beautiful stepdaughter who lives in the Seattle area. She aspires to be a CrossFit competitor, coach, and gym owner. My paternal grandparents emigrated from Italy, so I inherited their talent for cooking and music. Just like my grandmother, I sing, and I play the piano somewhat. I also make a mean spaghetti and meatballs. And yes, those meatballs ARE made from scratch and rolled by hand!

I love to attend the theater when time allows. I was fortunate to FINALLY see Phantom of the Opera last year, here in Omaha. My favorite opera I have seen is Madama Butterfly. It was extremely moving, and toward the end, it was quite hard to read the subtitles through my tears.



In my spare time in the summer, I like to work in my yard, swim, hike, and take occasional motorcycle rides with my husband. I have a motorcycle of my own, but viewing the scenery is much easier from the back seat. In the winter, it's mostly music and home projects. Also, curling up with a good book is a favorite past time if I find one worthy of my attention.



#### 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-congresshighlights.jsp

Graduate STEM Education for the 21<sup>st</sup> 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-instem-subjects-transforming-classrooms-schools-andlives

Discipline-based Education Research (National Academies Press):

https://www.nap.edu/catalog/13362/discipline-based-education-research-understanding-and-improving-learning-in-undergraduate

Books:

#### Books:

- The Effective Executive by Peter Drucker
- The Impact of Confidence: 7 Secrets of Success for the Human Side of Leadership by Timothy Ressmeyer
- Improving How Universities Teach Science by Carl Wieman
- Networking for Nerds by Alaina G. Levine
- Make It Stick by Brown, Roediger III, & McDaniel
- Turning the Flywheel: A Monograph to Accompany Good to Great by Jim Collins
- The 5 Languages of Appreciation in the Workplace: Empowering Organizations by Encouraging People by Gary Chapman and Paul White

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

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