



# Newsletter

March 2021, Volume 2, Issue 8

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Our March newsletter doesn't have a theme embedded—so let's instead choose the theme of joy! At the STC, we're joyful to partner with each of you. We're joyful of the experiential learning opportunities that we can offer to help lifelong learners. We're joyful of the tremendous honor and privilege that we have to serve our community. We're joyful for each time that you can join us for an e-event, or reach out with a way that we can better support your grant proposal, data collection for your manuscript, or your teaching practices. When you visit with us, you'll see infectious smiles because we are truly joyful in the work that we're doing.

In this issue you'll find some resources surrounding summer opportunities, teaching practices and self-reflections to foster growth mindset in teaching, and some additional offerings for professional development. Perhaps at this time of year you're feeling the pressures of many things— to stay focused on your goals but also to enjoy the nicer weather or to stay dedicated to the best possible learning outcomes for your students, despite the length of the remote or hybrid environment. Check out Dr. Smith's suggestions for a "Grade Nudge" note to check in with your students and give them the confidence that they need to finish strong. And, join us for the mentor/mentee cohort every 2nd Friday for accountability buddies to do just that!

For undergraduates reading this newsletter, perhaps you're unsure of whether the internship that you planned for this summer will be remote, or actually offered. Graduate students close to graduating, perhaps you're looking for more on-the-job training to pursue your career interests soon. Either way, please join us for a range of offerings this summer—from mentoring to research to additional experiential learning opportunities.

Finally, we're preparing the schedule for the 2021-2022 year. If there's a series that you would hate to see us lose, or if there's one that you would like to see us add, please drop us a line: [unostemtrailcenter@unomaha.edu](mailto:unostemtrailcenter@unomaha.edu). Wishing you perfect health and joy!



**Don't miss any events!**

[Join Our Email List](#)

## Upcoming Events



### Instructional Coaching & Research Mentoring Cohorts

**Facilitator:** *Dr. Chris Moore*, Assistant Director of the STEM TRAIL Center, Haddix Community Chair of Physical Science, Professor of Physics - College of Arts & Sciences

Looking for an Instructional Coach or Research Mentor? Join us to find a mentor, earn faculty professional development funds, and take your teaching and research to the next level.

**Fri, March 12th 11:00am - 12:00pm**

[Click here for more information and to register](#)

### Camaraderie Hours - UNO Students Only

Undergraduate and graduate students, this hour is only for you! Join your peers to connect in this remote environment. During the pandemic, we can't gather informally for camaraderie, so we are bringing it online! It's the perfect time to chat or just listen in, so grab your breakfast/brunch/coffee/soda/cat, and join us! We'd love to see you!

**Wed, March 24th 10:00am - 10:45am**

Camaraderie Hour with Student Government

[Register](#)

**Wed, April 7th 10:00am - 10:45am**

Teaching in the STEM field - tips, tricks and best practices

[Register](#)



### Using Inquiry and Active Learning - A Live Classroom

**Facilitator:** *Chrissi von Renesse PhD*, Department of Mathematics, Westfield State University and Discovering the Art of Mathematics

In this very active session, participants will experience doing a fun and easy mathematical activity (no prerequisites!) in a remote synchronous setting. They will then use this experience to deeply reflect on learning and teaching with inquiry. After the session, from noon to 12:30pm, there will be optional time to grab lunch and talk about teaching with inquiry in different classes and subject areas.

**Fri, April 2nd 11:00am - 12:00pm**

[Click here for more information and to register](#)



## Student Research and Creative Activity Fair

**Friday, March 26**

The Research and Creative Activity Fair is an annual, student-centered showcase of scholastic endeavors and achievements.

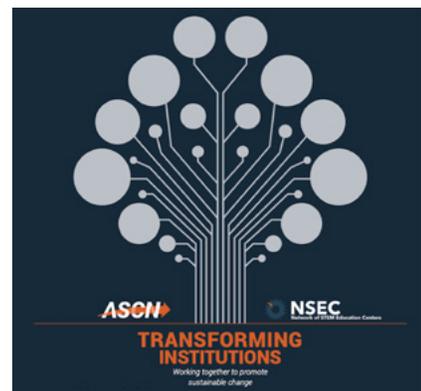
[Click here for more information.](#)

## Transforming Institutions 2021 Virtual Conference

**June 9-11, 2021 | Online**

The Transforming Institutions 2021 Virtual Conference will be jointly hosted by the Accelerating Systemic Change Network (ASCN) and the Network of STEM Education Centers (NSEC).

[Click here for more information](#)



## Math Mindsets workshop, joint with Michigan COMMIT

**Friday, March 26th, 2-4pm CT / 3-5pm ET**

Online via videoconference

[Click here for more information](#)



The 2021 [Metro Science and Engineering Fair](#) returned last month, breathing in new life amidst the Covid-19 pandemic. The event – which took place exclusively online for the first time in its history – provided students in grades 6-12 with an opportunity to present and display their research in a creative new format and have their projects judged virtually by area college instructors/professors and practicing professionals.

A total of 146 students from 17 different schools were represented this year. Round 1 judging was highlighted by students providing pre-recorded presentations to accompany their science posters and reports. Judges scored these projects over the week-long first round event.

On March 4th, the top 14 senior and top 15 junior projects were evaluated using live video where students responded to questions by a judge panel. At the conclusion of the final round, six projects were selected by each category to represent the Omaha Metropolitan area at the Nebraska State Science Fair.

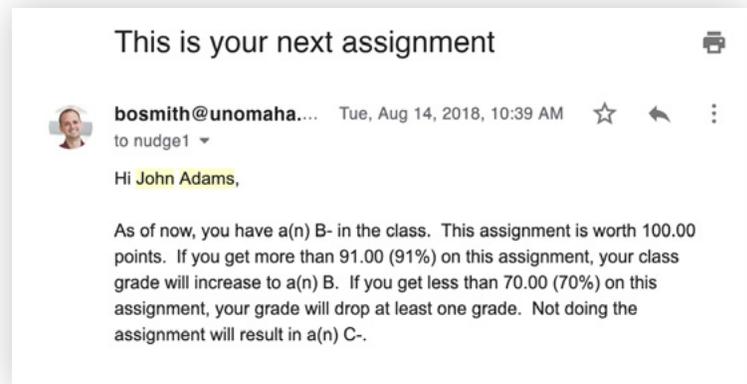
A special thanks to the tireless work of the MSEF committee, led by Daniel Sitzman, in addition to the project mentors, parents, guardians, judges, and countless others that have helped make the event a major success!

# Did you miss the February Teaching Practices Workshop? Check out these resources:

## Increase your students' performance with a "Grade Nudge"

Students don't always take into consideration all future outcomes when making decisions. Students procrastinate, forget about assignments, and decide to go to a party instead of studying for an exam. People's choice set is not driven by all available options, but what appears the most salient at the time. Researchers have found that small changes to a person's choice architecture can result in positive outcomes (Thaler & Sunstein, 2009).

Grade Nudge is a piece of online software that exploits this choice architecture to improve student performance. As the instructor, you simply drag the standard Canvas gradebook to the Grade Nudge interface, and provide some assignment details. Each student receives a personalized version of the message seen in Figure 1. This message has been shown to improve student performance by 4 to 13 percent (Smith, White, Kuzyk & Tierney, 2018). The software can be found at: <https://bensresearch.com/nudge/>.



*Smith, B. O., White, D. R., Kuzyk, P. C., & Tierney, J. E. (2018). Improved grade outcomes with an e-mailed "grade nudge". The Journal of Economic Education, 49(1), 1-7.*

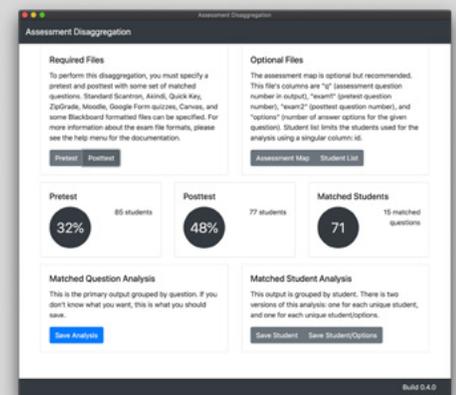
*Thaler, R. H., & Sunstein, C. R. (2009). Nudge: Improving decisions about health, wealth, and happiness. Penguin.*

## Measure learning, not exam performance

Good instructors try new techniques in their classroom. Arguably, a technique is successful if the students learned the material. However, measuring learning is more complicated than exam performance: some students already knew the material and some students guessed the correct answer on the exam.

Walstad and Wagner (2016) suggested that there are four learning types: positive, negative, retained, and zero. Positive learning is the statistic of interest for most instructors as it measures the learning during the class. Smith and Wagner (2018) produced estimators for each of these learning types in the presence of student guessing.

Assessment Disaggregation can read nearly any exam format (including Canvas and Scantron) and produce the disaggregated learning values proposed by Walstad and Wagner (2016) and Smith and Wagner (2018). The software is available for both macOS and Windows at: <https://www.assessmentdisaggregation.org/>.



*Smith, B. O., & Wagner, J. (2018). Adjusting for guessing and applying a statistical test to the disaggregation of value-added learning scores. The Journal of Economic Education, 49(4), 307-323.*

*Walstad, W. B., & Wagner, J. (2016). The disaggregation of value-added test scores to assess learning outcomes in economics courses. The Journal of Economic Education, 47(2), 121-131.*

# Reminders and Resources from the UNO Criss Library

## Reminder to check your eBook and eJournal library links before April 1st!

You may have noticed [a big change](#) to the UNO Libraries catalog this spring! Starting in January, all University of Nebraska campuses began using the same Primo platform as a shared catalog.

We have been working diligently to make the transition as seamless as possible but links to eBooks in Canvas or provided to students in syllabi or modules may need to be replaced. **The old library catalog will vanish and links to those records will break in April 2021.**

If you did not include the full citation information with that link in Canvas or your syllabus, it will be difficult to find the new record or for students to know what to read once the link breaks. For example, if you post your links as part of the text or instructions like this:

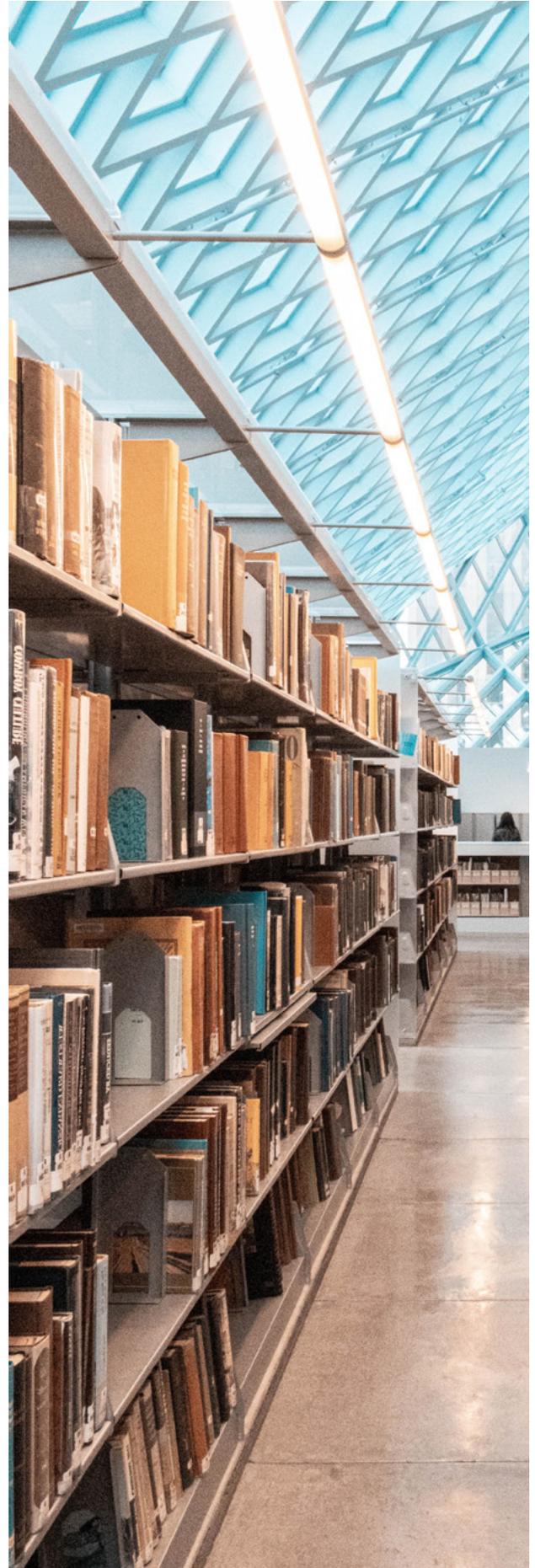
*Please read Chapter 4 of Financial Cybersecurity Risk Management for Tuesday.*

### What should you do to prepare your courses?

- If you use [direct database links](#) (sometimes called permalinks), you should not have any problems. These links go directly to an eBook and you're all set!
  - For example, if you are using [Safari TechBooks](#) and linking directly to this platform, you do not need to make changes.
- If you use [links to the previous library catalog record](#) (Worldcat), these links will need to be replaced.
  - Please contact us if you need assistance finding direct links for [EBSCO](#) and [ProQuest](#) eBooks, our two largest eBook vendors, or other eBook platforms.

In order to expedite the transition, I would be happy to create a list of direct links for you from a list of your eBooks or you may replace them yourself within Canvas or your syllabus. You may email me a list of the titles you use and I will compile this list.

As always, we welcome your comments, feedback, and questions to ensure UNO Libraries is providing services and content relevant to our campus community. Questions? Please contact **Heidi Blackburn, PhD** at [hblackburn@unomaha.edu](mailto:hblackburn@unomaha.edu), STEM and Business Librarian, Associate Professor



# Joyce Crockett Staff Achievement Award



The STEM TRAIL Center is proud to announce that our very own [Nik Stevenson](#) was selected as a 2021 recipient of a Joyce Crockett Staff Achievement Award by UNO's [WiSTEM Pro2](#) organization and their Awards and Recognition committee.

In the words of WiSTEM, "Nik was selected from a pool of other praiseworthy and respected staff members at UNO for his contribution to and promotion of equity in STEM. He is so deserving of this award and we are ecstatic to recognize him for his hard work and dedication."

Dr. Cutucache, PI of S-STEM and NE STEM 4U projects had the following comments about Nik's honor: "Nik has embodied equity, access, mentoring, and leadership through his roles as NE STEM 4U program coordinator, and as a member of the NSF-sponsored S-STEM project. Nik has taken the initiative to ensure that these programs are sustainable and impactful from a lens of diversity and inclusion. And, while most S-STEM programs struggle with recruitment, Nik has been the bedrock of ensuring that we have exceeded! our recruitment goals and added even an extra cohort to our program. I'm so appreciative of Nik's hard work, and honored to have him as a colleague.

Nik will be presented with his award at a virtual luncheon in April, featuring a series of videos to celebrate all the honorees.

~Dr. Gomez Johnson & WiSTEM Pro2 Awards & Recognition Committee



## Professional Development Funding

### **STEM Teaching Practices Instructor Development Fellowship**

The STEM TRAIL Center is pleased to offer professional development funding to full-time, non-tenure track faculty members at UNO. This program will provide up to \$1000 in funding per year to participate in conferences, workshops or training events related to improvement of courses. [Click here to find out more.](#)

# Resources from the Office of Digital Learning

## Humanizing Online Learning: Spring 2021 Cohorts

Join Digital Learning and faculty experts as they explore ways to help prepare you to design and facilitate an engaging online course; next cohort begins April 5. Humanizing is a student-centered mindset that involves recognizing and supporting the non-cognitive components of learning. Humanizing integrates elements of Culturally Responsive Teaching and Learning and Universal Design for Learning and focuses on presence, empathy, and awareness.

[Click here for more information](#)



The [Omaha STEM Ecosystem](#) announced the launch of the online STEM Community Platform, presented by Cox and in partnership with AIM Institute, which is fueling the technology behind the new website. The mission of the STEM Community Platform, [stemplatform.org](#), connects youth, parents, educators and professionals to an online hub of high-quality STEM programs, resources and events in the Greater Omaha area. The website is the first of its kind in Omaha to have a comprehensive list of STEM programs all in one place.

“Nebraska is currently faced with a critical shortfall of professionals in the fields of science, technology, engineering and math,” said Julie Sigmon, director for the Omaha STEM Ecosystem. “In order to grow the region’s talent pipeline, we must provide opportunities needed to be successful in learning, scientific thinking, examining potential career paths and exploring opportunities to extend educational achievement. The STEM Community Platform will maximize learning initiatives for students and adults, especially those underrepresented in STEM careers. The site would not be possible without our generous sponsors, Cox and Facebook.”

“We understand the important role STEM plays in the development of our youth. This platform provides access to hundreds of programming options and learning opportunities for everyone in our community, we couldn’t be more pleased to be a part of this new learning ecosystem,” said Kim Rowell, Cox Vice President, Omaha.

Together, and through the STEM Community Platform, education, government, nonprofit and business entities can help the Omaha STEM Ecosystem create a robust and vibrant STEM community that is equitable for all.

Founding and supporting community partners that made the STEM Community Platform a reality include Cox, Facebook, AIM Institute, Clarkson College, First National Bank of Omaha, Iowa West Foundation, Nebraska Department of Education, Nonprofit Association of the Midlands, Omaha’s Henry Doorly Zoo and Aquarium, and University of Nebraska at Omaha.



## Overview

The Technology and National Security Fellowship is an opportunity for technologists and entrepreneurs to serve their country by embedding with key decision makers at the top levels of the U.S. Government to help advise on the critical intersection of national security and technology.

## Participants

The Technology and National Security Fellowship recruits applicants on an annual basis for a Fellowship placement, which occurs from August-August each year. NSIN recruits Fellows with STEM backgrounds and technical expertise to embed in the offices of key decision makers at the Department of Defense and on Capitol Hill. Throughout the yearlong program, Fellows directly support policy makers and their immediate staff to help provide technical expertise and advice to a variety of critical subject areas. TNSF is open to U.S. citizens with an undergraduate or graduate degree in a STEM or STEAM field. Participants can possess a diverse skill set ranging from software development to policy research.

## Host Offices

The Technology and National Security Fellowship is meant to address a technological knowledge gap that the offices of most top-level policy makers face. In Congress, Fellows will be placed in the member offices or embedded with committee staff of one of the four relevant defense committees across both chambers of Congress. Fellows assigned to the Pentagon will be placed in the offices of senior defense officials in the Office of the Secretary of Defense, or in the offices of senior leaders throughout the Military Services. Once selected, Fellows will be placed in an office that best fits their unique skill sets.

## Important Dates (2021 Cohort):

**Participant Recruitment:** 01 Mar - 15 Apr 2021

**Interviews and Matching:** Apr-May 2021

**Launch:** Sept 2021

## Application/Next Steps

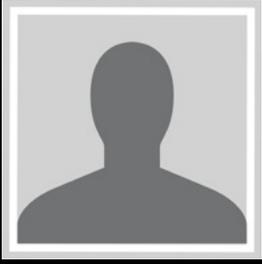
Applications for the TNSF program: <https://www.nsin.us/tnsf>.

For more information, or to learn how to host a TNSF Fellow, email [tnsf@nsin.us](mailto:tnsf@nsin.us).

## About the National Security Innovation Network

The National Security Innovation Network is a program of the U.S. Department of Defense that collaborates with major universities and the venture community to develop solutions that drive national security innovation.

We operate three portfolios of programs and services: National Service, Collaboration, and Acceleration. Together, these portfolios form a pipeline of activities and solutions that accelerate the pace of defense innovation.



# This could be YOU.

Apply now to be an NE STEM 4U mentor for summer 2021.

[www.unomaha.edu/academic-affairs/ne-stem-for-u](http://www.unomaha.edu/academic-affairs/ne-stem-for-u)

## Resources & Opportunities

### A Remote Professional Development Experience

For more information and to apply, [click here](#).



### Consider a Gift, Support an Intern at your Company, or Volunteer!

Interested in donating? Please consider contributions to our UNO STEM TRAIL Center Excellence Fund #01149830 at the Nebraska University Foundation:

#### Checks can be mailed to:

University of Nebraska Foundation  
PO Box 3465  
Omaha, NE 68103-0465

**reference: 01149830 - UNO STEM TRAIL Center Excellence Fund**

[Or gifts can be remitted electronically.](#)

Let us know how we can support you:

[unostemtrailcenter@unomaha.edu](mailto:unostemtrailcenter@unomaha.edu)

## STEM Scramble!

**ISFER** \_\_\_\_\_

**EARNDGNEED** \_\_\_\_\_

**NTIOTINXEC** \_\_\_\_\_

**SPCIEES** \_\_\_\_\_

**TASARUAIL** \_\_\_\_\_

Need a hint and curious why these words matter this month?

**Check it out!** \*Answers in next month's issue.

Last month's STEM Scramble answers:  
**SAUNTR:** Saturn **SAESEILLTT:** Satellites  
**RVEDCSIYO:** Discovery **LTIT:** Tilt



Follow us on Twitter!  
**@UNOSTEMTRAIL**

Have an idea for future programming? Interested in contributing your time or talents to the STC? Contact us!

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