



Newsletter

September 2020, Volume 2, Issue 2

IN THIS ISSUE:

- STC Cross Campus Collaborations
- Upcoming Events
- NSF Funds New Awards
 - A Growing Movement of Mathematics Educators: the Network of Inquiry-Based Learning Communities
 - Cognitive and Social Processes for Teams
 - Providing Community Support Through Data Literacy: U-SLED
- Workshop for High School Science Teachers: Strategies for Re-creating Science Inquiry Online
- Connecting Business with Education to Build the Workforce
- Fall Offerings from our Partners
- Resources and Opportunities

STC Inter- and Intra-Campus Collaborations

The foundation of the STEM TRAIL Center (STC) has always been collaboration. It was the very collaborative efforts, ongoing dynamic team-based activities across campus, and interdisciplinary approaches to complex problems that have helped to focus the idea for the Center and to increasingly expand the joint STEM research across the Nebraska University system. This efforts aim to elevate the overall research profile of Nebraska, expand the opportunities for all students to participate in research experiences, and to prepare and expand the workforce via experiential learning.

A core goal for the Center within this context of wider NU collaboration was to leverage existing expertise across NU, build out strong teams that personify the values of NU, and reach for the sky on external funding proposals. In the 15 months of operation, the STC has submitted collaborative grants with every NU campus. Not only has this process allowed for the expansion of talent and teamwork, but it also aims to improve our recruitment of students, retention of students, and expand upon the workforce within Nebraska.

UNO Senior Vice Chancellor for Academic Affairs, Dr. Sacha E. Kopp conveyed this very sentiment in his remarks about the initiatives, "It's hard to over-state the impact that collaboration can bring to our students, faculty, and staff in fostering the research mission at UNO. This work of the STEM TRAIL Center and its collaborations across the NU System will expand to include community partners across the state. We aim to contribute to workforce development in a meaningful way, and these projects are making it happen."



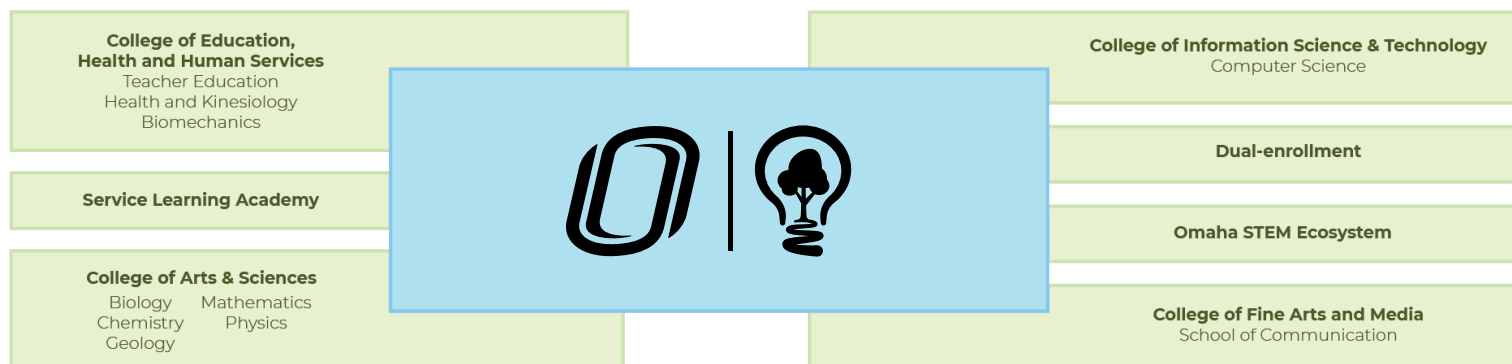
Don't miss any events!

[Subscribe to our Calendar](#)

Not ready to subscribe but want to learn more about opportunities that we offer?

[Click here!](#)

#NU4NE



“ The collaborative efforts between UNO and UNK has brought a highly engaging kinesthetic STEM program for out-of-school time geared towards elementary and middle school students. The positive impact of the program is found with students in the K-6 setting, but also with those who attend UNK. Undergraduates have gained insight into STEM, and the opportunity teach cross-disciplinary lessons. The connection between departments (UNO-Biology, and UNK-Kinesiology and Sport Sciences) across campuses in the University system illustrates the ability for faculty to communicate, work together, and provide meaningful programming.”

- **Dr. Megan Adkins,**

UNK, Associate Professor, Kinesiology and Sport Sciences Department, Health and Physical Education Program Chair

“ As we continue to innovate around education, during COVID and during non-pandemic times, we are proud of the strong partnership amongst our campuses that support learners everywhere. Through the uBEATS and STRIVE projects, we are building activities, processes, and products that will support teachers and STEM learners well into the future.”

- **Dele Davis, M.D.,**

Senior Vice Chancellor for Academic Affairs, UNMC

“ We are pleased to work with colleagues at UNO to advance STEM education. We aim to continue building the next generation of STEM teachers, STEM researchers, and STEM innovators. The collaborative approaches of bringing together faculty and staff with complementary skillsets allows us to effectively leverage our resources to compete for the next decade of projects to enhance life in Nebraska and beyond.”

- **Jim Lewis,**

Director, UNL Center for Science, Mathematics and Computer Education

And as we transition to Bioscience month in October, we can't forget the new technologies that result from these robust collaborations:

“ I am thrilled to see how the STEM TRAIL Center is supporting ongoing collaborations amongst the great researchers of Nebraska, where the collaborative spirit is alive and well. Thanks to this comprehensive strategy of engagement across the NU campuses, I expect these partnerships will be a major boost to extramural funding in STEM. As a bonus, this work will ultimately help build the STEM workforce of Nebraska, thereby bringing in cutting-edge technologies to our state and a more robust economy.”

- **Kenneth W. Bayles, Ph.D.,**

UNO, Interim Associate Vice Chancellor for Research, and Creative Activity, Office of Research and Creative Activity

Upcoming Events



Professional Development for Undergraduates Resumes and Cover Letters

Facilitator: Sam Zeitner, Assistant Director of Career Advising, ACDC

In the Academic and Career Development Center we keep up on resume/cover letter trends and solicit advice from industry professionals on what makes a great resume. Join us on September 23rd for an in-depth look at resumes and cover letters as we go over the dos and don'ts of resume etiquette. Learn how to make your resume stand apart as well as how to coach students on crafting a strong resume.

Wed, September 23rd 10:00am - 11:00am

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



Grant Writing Workshop Introduction to UNO's Funding Databases

Facilitator: Katy Vitale, Project Manager, Office of Research and Creative Activity

Faculty, staff, and students are welcome to attend an introduction to UNO's funding databases workshop. The session will begin with a brief introduction to funding databases such as GrantForward.com and Foundation Directory Online. The remaining time can be used by attendees to search those databases and ask questions.

Fri, September 25th 11:00am - 12:00pm

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



4th Wednesday Programming - Professional Development for Undergraduates

Facilitator: Agnes Lenagh, PhD, Business Development & Intellectual Property Analyst, Streck

Undergraduate and graduate students are invited for a conversation with Dr. Lenagh about opportunities in biotech and industry. Dr. Lenagh will speak about her experience, offer advice and address questions from participants.

Wed, September 30th 10:00am - 11:00am

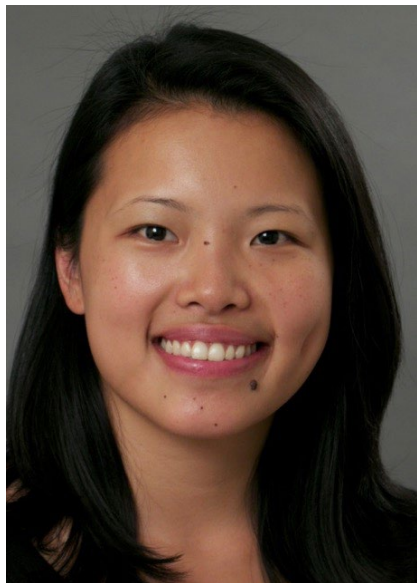
[Click here for more information and to RSVP](#)



Do you know an exemplary STEM mentor?

Nominate them for the Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM) today! Don't miss this wonderful opportunity to honor our Nation's greatest mentors.

[Nominate them here.](#)



3rd Friday Programming - DBER Seminar Speakers

Identifying the Linguistic Conventions of Undergraduate Proof Writing

Speaker: Kristen Lew, PhD, Assistant Professor, Mathematics, Texas State University

Mathematical proof is central to mathematical practice. As such, extant research in mathematics education concerning proofs at the undergraduate level focuses on the content and the way of thinking about proofs. I will present work in which I studied the linguistic conventions of mathematical proof writing at the university level.

Fri, September 18th 11:00am - 12:30pm

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



1st Friday Programming - Teaching Practices Workshop

When Me Becomes We:

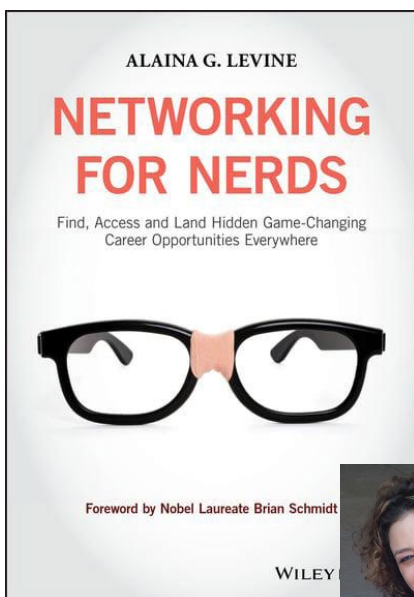
Practical Ways to Reach and Engage Students

Workshop Facilitator: Bonni Stachowiak, PhD, Host of The Teaching in Higher Ed Podcast, Dean of Teaching and Learning and Professor of Business and Management at Vanguard University of Southern California.

This session explores the ways in which some of our students struggle and how not to inadvertently contribute to their difficulties. We begin with our commitment to reach and engage all students. Then, we explore practical ways to increase curiosity, represent concepts in multiple ways, and invite students to demonstrate what they have learned in different ways.

Fri, October 2nd 11:00am - 12:30pm

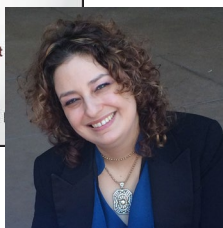
[Click here for more information and to RSVP](#)



Virtual Networking for Nerds: How to find and build collaborations from afar

Facilitator: Alaina G. Levine, President, [Quantum Success Solutions](#), Author, Networking for Nerds (Wiley, 2015)

In this webinar, we will discuss strategies and tactics for finding new collaborators and building mutually-beneficial partnerships with professionals across the globe (and perhaps on some exoplanets too!). We will utilize various methods to find and reach out to people, and start and nurture those critical conversations which can birth amazing collabs! Let's network!



Wed, October 7th 10:00am - 11:00am

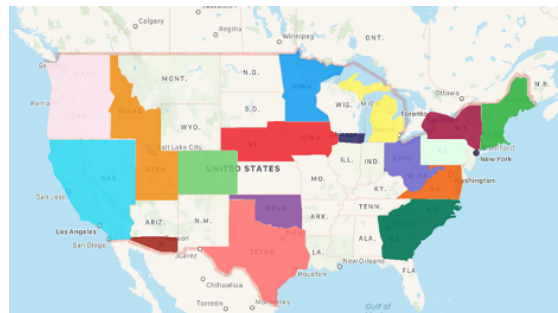
[Click here for more information and to RSVP](#)

A Growing Movement of Mathematics Educators: the Network of Inquiry-Based Learning Communities

To expand active learning strategies, [Dr. Rault](#) leads a Network of Inquiry-Based Learning Communities (IBLCs) in mathematics. This network exists to provide and support professional development and collaborative experiences involving student-centered learning through inquiry to the community of mathematics educators in higher education. Participants who are K-12 teachers or educators in other STEM fields often find value in network events as well. Within UNO, the project team also includes Dr. Tracie Reding, Ed.D., UNO STEM education and outreach coordinator; Dr. Kelly Gomez Johnson, Ed.D., assistant professor of teacher education; and Dr. Paula Jakopovic, Ph.D., instructor of teacher education. Together they are studying the value that members find in the community.

While this team was awarded a [\\$299,999 IUSE grant in support of IBLCs](#), the team has also been awarded a 2020 supplement (\$59,998) and this doubles the size of the network to include eight regional communities.

One of these communities has already been identified: the Upstate New York IBL Consortium, which Rault co-founded in 2014 under the support of a \$102,210 award from the Educational Advancement Foundation. This supplemental award also supports the development of a toolkit of best practices for new communities in STEM to replicate the successes of these IBLCs. The first edition of this toolkit is expected to be released by December 2020, in time to support three new communities to be added to our network in spring 2021.



NSF Funds New Award: Cognitive and Social Processes for Teams

A new project funded from the National Science Foundation (#1951300) Science of Organizations at the University of Nebraska at Omaha aims to serve the national interest by improving team-based collaboration via cognitive and social processes. [Dr. Roni Reiter-Palmon](#), Professor and Director, Industrial/Organizational Graduate Program, Professor of Psychology, will study organizational performance as a function of the team. Dr. Reiter-Palmon is joined by Dr. Joseph Allen (Utah) on the project, “Creativity in Teams: Identifying the Role of Meetings in Fostering Effective Cognitive and Social Processes in Teams”.

Creativity and innovation have been suggested as important for organizational performance and the use of teams in organizations is on the rise. This research team aims to evaluate the interrelationships between social and cognitive processes in team meetings for generating a creative idea or product. The project will assess the team cognitive process sequences that effectively result in more creative ideas, the effect of team dynamics on these cognitive processes, and how cognitive and social processes interact to produce creative outcomes. Ultimately, they will investigate whether an intervention to facilitate team creativity will improve creativity and the effect it has on both cognitive and social processes. Of note, this is the second award to Dr. Reiter-Palmon in as many months.

Looking for collaborators with experience with the Complex Problem Based Learning Approach or the Cognitive Sciences behind Creativity or Organizational Health? [Reach out!](#) Interested in learning more about applications to translate into your classroom? Join us every first Friday. Dr. Reiter-Palmon is also serving as a research mentor as part of the STEM TRAIL Center’s initiative. Looking for a research mentor or instructional coach? Email us today!

**UNO STEM TRAIL CENTER**
We're here to support you and your professional growth through cohort-based activities and coaching.
Teaching, Research, and Inquiry-based Learning (TRAIL)

TEACHING-FOCUSED:

- Aiming to implement effective pedagogical approaches within your classroom?
- Looking for a mentor to help you reach your goals?
- Seeking a cohort that holds each other accountable and supports one another on new, innovative interventions?

Join our 2020-2021 Instructional Cohort

**RESEARCH-FOCUSED:**

- Looking for a mentoring team for setting up your research program?
- Interested in staying up to date on RFPs that can expand your program?
- Seeking a supportive ecosystem to aid in reviews of your ideas and grants to raise your success level?
- Want to be part of a cohort that celebrates each of your successes with you?
- Have strong quantitative background but missing the qualitative (or vice versa)?

We have your complementary expertise ready to support you!
Join our 2020-2021 STEM Research Cohort
Send an email to unostemtrailcenter@unomaha.edu.



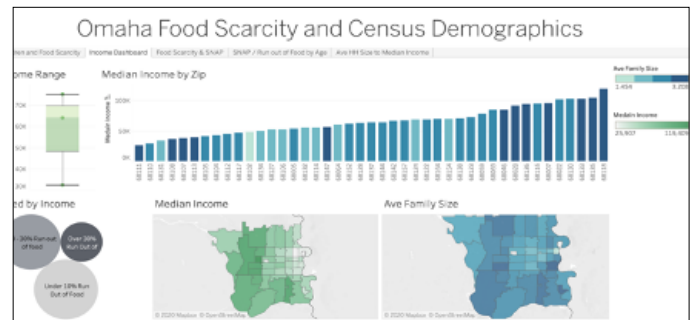
Click for full flyer.

Providing Community Support Through Data Literacy: U-SLED

A team led by Dr. Michelle Friend, Dept of Teacher Education, College of Education, Health, and Human Sciences, along with Dr. Becky Brusky (Mathematics, A&S), Dr. Julie Dierberger (Service Learning Academy), Dr. Mahbubul Majumber (Mathematics, A&S), and Dr. Betty Love (Mathematics, A&S) will implement a study on STAT1100, the general education mathematics course that incorporates community engagement to teach students data literacy.

The Undergraduate Service Learning Experiences with Data: Mathematics in the Community (U-SLED; NSF #2021512) is a new interdisciplinary project that uses community engagement to improve undergraduate mathematics education. This project builds upon the success of a prior NSF grant that created MATH1120: Mathematical and Computational Thinking, and led to innovation in approaches to general education mathematics at UNO.

U-SLED will implement and research a new course, STAT 1100: Data Literacy and Visualization. Students will learn data analysis and visualization by working with non-profit organizations. Students will use data to answer authentic questions for these community partners, strengthening partners' organizational capacity to meet their missions while preparing students with critical workforce skills such as data literacy and collaboration. For example, Wellbeing Partners is a local non-profit working to eliminate health disparities who wants to understand relationships between demographic variables (e.g., family size, income, education rates) and how often families run out of food each month. A student group will use U.S. census data and data on food deserts to analyze and visualize these relationships such as in the image below.



This unique approach to general education mathematics is expected to increase students' confidence and interest in mathematics and STEM careers, engage students in the local community, and serve as a model across the U.S.

Workshop for High School Science Teachers: Strategies for Re-creating Science Inquiry Online Facilitated by Dr. Chris Moore

The anthropogenic disaster of the coronavirus pandemic (COVID19) fundamentally changed the classroom and required teachers to adapt their strategies overnight. In this workshop, we will discuss practical strategies for online science teaching and facilitating student interactions online. Specifically, you will learn about the Communities of Inquiry (COI) framework and how it can be used to recreate high-impact, interactive inquiry online, including rich discussion, group work, and laboratories.

This interactive online workshop is facilitated by Christopher Moore, author of the books *Creating Scientists* and *Teaching Science Thinking*, and co-author of the high school curricula *Experience Chemistry* and *Experience Physics*.

Monday, September 28th
5:00pm - 6:00pm

Online event, all welcome. To register, teachers will just need to [RSVP here](#).



Connecting Business with Education to Build the Workforce

The Omaha STEM Ecosystem's mission is building a stronger STEM community by connecting education and business development for tomorrow's workforce. Over the years our newsletters have featured STEM professionals that we felt were playing an active role in transforming Omaha into a center of STEM excellence and innovation. This month, we'd like to feature Jack Cenovick, a high school student at Brownell Talbot. Jack has been a volunteer with Prairie STEM virtual programs. Below is a statement submitted by Alan Wang, Executive Director, that highlights Jack's commitment to STEM excellence and innovation.



"In light of all the challenges of daily life and struggles in our respective worlds, I wanted to share the example of an amazing, young man who happens to volunteer with our Virtual STEAM program and Community Innovation Challenges. He (and his sister) have been working tirelessly on helping package STEM-kits to be distributed to under-served populations of OPS students (Kennedy/Springlake Elementary) to supplement and enrich their remote learning. He is also a leader among his peers in creating the student version of Prairie STEM at Brownell Talbot (JuSTEMagine). I'm humbled by his commitment to serve. To show our appreciation, we are now trying to help them promote their student-led project to deal with inequities in education,

specifically internet connectivity for all. If possible, could you share the following with your networks (high schools or community organizations) who are looking for more engagement from their students during this distanced world of education."

For more information on Jack's project - juSTEMagine Virtual Challenge, go to [the website here](#).



CELEBRATING CREATIVITY IN A COVID-19 CULTURE:

Navigating What's Next: Now, Near, and Far

September 23, 2020 | October 20, 2020

8:30AM - 10:00AM

Sign up for one or both



PAST



PRESENT



FUTURE



SUCCESS

As we navigate the challenges and opportunities in this new culture, we draw on the knowledge of our diverse network of thought leaders and experts to understand the implications to our work, education, and future workforce. **Please join us for this series of virtual Roundtable Discussions to share our experiences and lessons learned among a diverse set of stakeholders.**

Facilitated by:

Beth Morrisette, MPA, MSW, CEO of Parlay Consulting Firm, will facilitate our Roundtable Series. She specializes in building organizational capacity through board governance, strategic planning and implementation coaching. Beth is a skilled facilitator and we look forward to working with her on this series.

The Omaha STEM Ecosystem

Don't forget to register for the September 23rd Roundtable Discussion. The breakout session topics reflect the survey from the June 23rd Roundtable. This is a great opportunity to have a deeper conversation around issues important to you. We are also excited that Rachel Jacobson, President of Heritage Services will be opening the third Roundtable Discussions, on October 20th. Heritage Services recently announced the new STEM Center project on the riverfront. The proposed science center will be a learning and entertainment attraction with a focus on STEM-inspired activities. Look forward to seeing you!

[Register Now](#) Use code: **OSERT2020**

Check out Fall offerings from our partners in the UNO Office of Research & Creative Activity

NuRamp Training Sessions

NuRamp (formerly MavGrants) training sessions are now hosted via Zoom. The fall training dates are listed below. Please [register here](#) to attend.

October 1, 11:00 AM - Noon

November 5, 11:00 AM - Noon

December 3, 11:00 AM - Noon

Contact [Katy Vitale](#) to schedule a NuRamp/MavGrants training session.

Introduction to UNO's Funding Databases

The sessions will begin with a brief introduction to [funding databases](#) such as [GrantForward.com](#) and Foundation Directory Online. The remaining time can be used by attendees to search those databases, receive guided assistance in their search process, and ask questions of ORCA personnel. These meetings are now hosted via Zoom. The fall training sessions are listed below. Please [register here](#) to attend.

October 1, 1:00 PM - 2:00 PM

November 5, 1:00 PM - 2:00 PM

December 3, 1:00 PM - 2:00 PM

Request an individual training by contacting [Katy Vitale](#).

Nik Selected as Part of Inaugural Cohort!



Nik Stevenson, M.S., selected as part of inaugural cohort for the University of Nebraska at Omaha Equity and Inclusion Certificate (EIC). This is a two-year commitment during which Nik will learn more about equity and inclusion to contribute to his mission at the STEM TRAIL Center.

**2020-2021 Faculty Leadership Forum:
Social Science
Methodology and Methods**

October 1
November 5
December 10-11

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

REFLECT Symposium Take II

Online registration for The Making of a T-1 University (Take II) is now open!

Your teaching matters. Make it matter more. On Saturday **October 31st** from 9-12:30 Pacific Time we welcome you to join faculty and administrators to share your personal innovations in student-centered teaching. Topics will include evidence-based instructional practices, formative assessment, teaching with technology, equity and diversity, and creativity and cognitive demand.

The conference is free and virtual via Zoom. Registration closes October 9th. Questions? Email [Stephanie Salomone](#) or [Tara Prestholdt](#).

Resources & Opportunities

College of IS&T Request for Proposals

Dear Colleagues: We are seeking proposals for "lesson plans" for our iSTEM After School (Virtual) program. The target audience is 5th through 12th grade students. We expect to offer 10+ grants. Please see the attached document for details. Please feel free to contact Daniel Stokes (iSTEM Program Coordinator) if you have any specific questions regarding this internal UNO RFP.

[iSTEM Afterschool PDF](#)

uBEATS e-learning

uBEATS is an exciting new, free e-learning resource from UNMC and UNO. The uBEATS library of interactive, online science and health science modules is open and ready for teachers. To see all 65 topics, see [this flyer](#) or visit our [website](#). Why use uBEATS? Check out our uBEATS YouTube channel. To access the uBEATS e-learning modules, click [here](#) to complete our online form to request your accounts.

We look forward to helping you and your students learn in new and exciting ways!

What We're Reading this Month

[Race Matters](#)

Looking for additional resources to assist with your [research design processes](#)? UNO users can check out the new CARMA subscription with your UNO credentials.



**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



Follow us on Twitter!
@UNOSTEMTRAIL

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

STEM TRAIL Center unostemtrailcenter@unomaha.edu

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