

Transforming  
Mathematics  
Teaching & Learning  
Together

Fall 2023

# TCU-Carnegie Math Pathways Network Convening

St. Paul, MN



CARNEGIE MATH  
**PATHWAYS**  
WestEd



# Welcome!

# Agenda at a Glance

<b>DAY 1</b>		Friday, October 13, 2023
8 - 9 a.m.	<b>Pre-Convening Breakfast</b>   Kellogg Suite 2 & 3	
9 - 4 p.m.	<b>Pre-Convening Orientation to Carnegie Math Pathways (Lunch Included)</b>   Kellogg Suite 2 & 3	
3 - 4:30 p.m.	<b>Main Convening Registration</b>   Foyer outside Kellogg Suite 1	
5 - 6:30 p.m.	<b>Opening Prayer, Welcome Reception</b>   Kellogg Suite 1	
7 - 9 p.m.	<b>Optional, Game Night</b>   Kellogg Suite 1	

<b>DAY 2</b>		Saturday, October 14, 2023
8 - 9 a.m.	<b>Breakfast</b>   Kellogg Suite 1	
9 - 9:45 a.m.	<b>Community Connection &amp; Celebration</b>   Kellogg Suite 2 & 3	
9:45 - 10 a.m.	<b>Break</b>   Kellogg Suite 2 & 3	
10 - 11 a.m.	<small>OPENING KEYNOTE   KELLOGG SUITE 2 &amp; 3</small> <b>TCU Faculty Transforming Higher Education Through Native Nation Building</b> Dr. Natalie Youngbull, Assistant Professor in Education Leadership and Policy Studies at Oklahoma University	
11:05 a.m. - 12 p.m.	<b>Meeting TCU Students Where They Are: Exploring Flexible Applications of Quantway and Statway</b>   Kellogg Suite 2 & 3	
12 - 1 p.m.	<b>Lunch</b>   Kellogg Suite 1	
1 - 2:30 p.m.	<b>Rethinking Productive Persistence and Rehumanizing Mathematics through Indigenous Perspectives</b>   Kellogg Suite 2 & 3	
2:30 - 2:45 p.m.	<b>Break</b>   Kellogg Suite 2 & 3	
2:45 - 3:45 p.m.	<b>Grading to Support Growth Mindset</b>   Kellogg Suite 2 & 3	
3:45 - 5 p.m.	<b>Red Lake Nation College Presentation</b>   Location TBD	
6 - 10 p.m.	<b>Group Dinner</b>   <i>Owamni</i>	

# Agenda at a Glance



## DAY 3

Sunday, October 15, 2023

8 - 8:30 a.m.	<b>Breakfast</b>   Kellogg Suite 1
8:30 - 9:30 a.m.	CLOSING KEYNOTE   KELLOGG SUITE 2 & 3 <b>Indigenous Figures: Indigenizing Math, Statistics, and Education Spaces for TCU Students and Faculty</b> Dr. Krystal Tsosie, an Assistant Professor in the School of Life Sciences at Arizona State University
9:30 - 10 a.m.	<b>Reflections, Closing Prayer, and Closing Remarks</b>   Kellogg Suite 2 & 3

## Saturday, October 14 , 2022

### Community Celebration & Connection

9 - 9:45 a.m. | Kellogg Suite 2 & 3

Using discussion prompts, participants will have the opportunity to reconnect with colleagues and welcome new educators while sharing experiences and supporting our community.

OPENING KEYNOTE: Dr. Natalie Youngbull

### TCU Faculty Transforming Higher Education Through Native Nation Building

10 - 11 a.m. | Kellogg Suite 2 & 3

### Meeting TCU Students Where They Are: Exploring Flexible Applications of Quantway and Statway

11:05 a.m. - 12 p.m. | Kellogg Suite 2 & 3

TCUs are using the same Quantway and Statway course materials in different ways, for different student needs. Learn more about flexible applications of CMP courses from educators and the team as they share corequisite models, course models to support career training programs, and open education resources.

### Rethinking Productive Persistence and Rehumanizing Mathematics through Indigenous Perspectives

1:00 - 2:30 p.m. | Kellogg Suite 2 & 3

This session will invite participants in shared thinking about how to rethinking productive persistence within the contexts of TCU and Indigenizing mathematical learning experiences. We will share new thinkings and research regarding productive persistence and connect these ideas with Indigenous perspectives and rehumanizing approaches in mathematics education.

### Grading to Support Growth Mindset

2:45 - 3:45 p.m. | Kellogg Suite 2 & 3

An essential part of any grading system is determining the Student Learning Outcomes (SLOs) and the pass/fail Learning Targets (LTs) that students are expected to master. During the workshop, participants will examine the learning objective included with Carnegie Math Pathways and those used by Earle Crosswait at the Saginaw Chippewa Tribal College for Quantway Core and Statway College. Participants are encouraged to bring their syllabi or a list of their course learning outcomes to this collaboration.

### Red Lake Nation College Presentation

3:45 - 5:00 p.m. | Kellogg Suite 2 & 3

Student panel and presentation featuring Red Lake Nation College's history and new developments.

## Sunday, October 15, 2023

CLOSING KEYNOTE: Dr. Krystal Tsosie

Indigenous Figures: Indigenizing Math, Statistics, and Education Spaces for  
TCU Students and Faculty

8:30 - 9:30 a.m. | Kellogg Suite 2 & 3

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## Keynotes



### Dr. Natalie Youngbull

Assistant Professor in Education Leadership and Policy Studies  
Oklahoma University

Natalie Rose Youngbull is an enrolled citizen of the Cheyenne & Arapaho Tribes (located in Oklahoma) and descended from the Ft. Peck Assiniboine & Sioux tribes of Montana. Natalie earned her Ph.D. at the University of Arizona in the Educational Policy Studies and Practice department with an emphasis in Higher Education. She is an Assistant Professor of Adult and Higher Education in the Educational Leadership and Policy Studies Department at the University of Oklahoma. Natalie studies the experiences of American Indian Gates

Millennium Scholars (AIGMS), Native/Indigenous student success, impacts of Historically Native American Fraternities and Sororities (HNAFs), and Native Nation Building, and intellectual leadership and capacity building within tribal colleges and universities (TCUs). She serves as an editor of the Tribal College and University Research Journal (TCURJ), the first peer-reviewed journal focused on research based within TCUs. Natalie previously served as the Faculty Development Program Officer at the American Indian College Fund, where she administered faculty graduate and doctoral fellowships, coordinated faculty retreats, and supported faculty development in scholarly activity.



### Dr. Krystal Tsosie

Assistant Professor in the School of Life Sciences  
Arizona State University

Krystal Tsosie (Diné/Navajo Nation), PhD, MPH, MA, is an Indigenous geneticist-bioethicist and Assistant Professor in the School of Life Sciences at Arizona State University. As an advocate for Indigenous genomic data sovereignty, she co-founded the first US Indigenous-led biobank, a 501c3 nonprofit research institution called the [Native BioData Consortium](#).

Her research can be encapsulated in two main foci: Indigenous population genetics and bioethics. In particular, she focuses on bioethical engagement of Indigenous communities in genomics and data science to build trust. As a whole, her interest is in integrating genomic and data approaches to assess Indigenous variation contributing to health inequities.

Her research and educational endeavors have received increasing national and international media attention as scientists worldwide are understanding the importance of equitable, community-based engagement models and the importance of Indigenous genomic data sovereignty. Her work has been covered by popular media outlets including PBS NOVA, The Washington Post, NPR, New York Times, The Atlantic, Forbes, and Boston Globe. She currently serves on the Government Policy and Advocacy Committee for the American Society of Human Genetics and two National Academy of Medicine Committees on Emerging Science, Technology, and Innovation and Engaging Scientists in Central Asia on Data Governance. She is a current Global Chair in ENRICH (Equity for Indigenous Research and Innovation Coordinating Hub), which focuses on enhancing Indigenous rights to develop, control, and govern Indigenous data and supports participation in STEM and in digitally-enabled futures.

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A grayscale background photograph of a group of people sitting at a table in a meeting room. In the foreground, a woman with glasses is seen from the side, gesturing with her hand. Another woman in the center is smiling and has her hands clasped. There are drinks and plates on the table. In the background, several flags are visible, including one with the word 'GREAT' and another with '2100X LIBRE'.

**Thank you!**