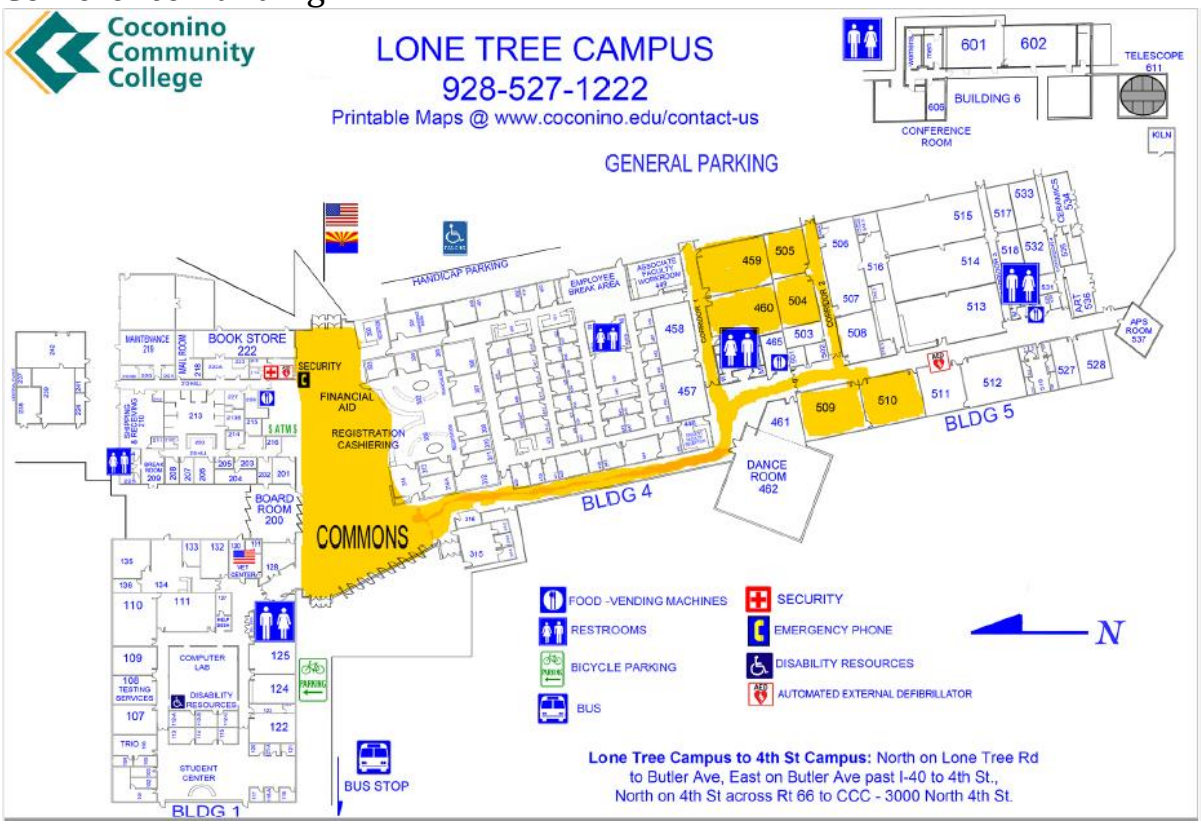
ArizMATYC Conference

April 7, 2023

Hosted by:
Coconino Community College, Lone Tree Campus

Campus Information

Conference Building



Parking Information

Parking pass requirements for the General Parking lot will be removed for the day of the event. Any spot that is east of the main building (i.e. above it on the map) is part of General Parking, unless otherwise stated.

Coconino Community College, Lone Tree Campus Location

2800 S. Lone Tree Road, Flagstaff, AZ 86005

Program

Friday, April 7

8:00 am – 10:00 am	Registration	*Commons*
8:30 am - 9:30 am	Breakfast	*Commons*
9:00 am – 10:00 am	ATF Meeting	*Room 460*
10:00 am – 11:00 am	Keynote Address	*Commons*
	● Dr. Gerard van Belle – Astronomer, Lowell Observatory	
11:10 am – 12:00 pm	Breakout Sessions 1	*See program overview, page 6*
12:00 pm – 1:30 pm	Lunch and Campus Reports	*Commons*
1:40 pm – 2:30 pm	Breakout Sessions 2	*See program overview, page 7*
2:40 pm – 3:35 pm	Breakout Sessions 3	*See program overview, page 10*
3:35 pm – 3:50 pm	Break	*Commons*
3:50 pm – 4:40 pm	Breakout Sessions 4 & ArizMATYC Business Meeting	*See program overview, page 12*

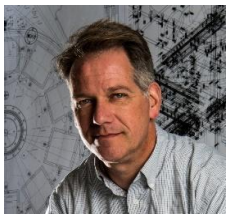
Conference Vendors

Derivita ~ *XYZ textbooks and XYZ homework* ~ *McGraw-Hill/ALEKS*

Schedule at a Glance

Friday, April 7	Commons	Room 459	Room 460	Room 505	Room 509	Room 510
8:00 am - 9:00 am	Registration 8:00 am - 10:00 am					
9:00 am - 10:00 am	Breakfast Served 8:30 am - 9:30 am		ATF Meeting			
10:00 am - 11:00 am	Keynote Address					
11:10 am - 12:00 pm		Culturally Affirming Precalculus: Teach Grounded in Arizona as Place!	Building Thinking Classrooms- Getting Started!	Open Textbooks for Rural Arizona Grant and OER, How Do I get Started?	Introducing Derivita	Sexism, Racism, Food Insecurity: Research Mathematician
12:00 pm - 1:30 pm	Lunch and Campus Reports					
1:40 pm - 2:30 pm		ChatGPT: Friend or Foe?	The Changing AGEC	Active Learning Lessons and Lesson Study Change Teaching and Learning	Increasing Access with Mathematics Placement	XYZ textbooks
2:40 pm - 3:05 pm		Unlocking Learning Potential: Exploring the Power of Mathematics TACTivities	Pedagogy for Implementing the Equity Triangle	The Keep in School Shape Program: History, Research, and Potential	Formative Assessment in a University Precalculus Class	Arizona High School Updates and Perspectives
3:10 pm - 3:35 pm		The Sacred Side of Mathematics: Sangaku in Edo Period Japan and Their Influence Today	Do Second Attempts Improve Student Success? Is There Really a "COVID Effect"?		Reflective Practice in Developmental Mathematics	
3:35 pm - 3:50 pm	Break					
3:50 pm - 4:40 pm		The Art of Creating Problems	Trauma-Informed Math Instruction K-12	ArizMATYC Business Meeting	Using Adaptive Courseware in Introductory Mathematics Classes	Progress on the Algebra++ Initiative.

Program Overview



Keynote

Dr. Gerard van Belle
Astronomer
Lowell Observatory

The Mathematical Music of the Spheres

Commons *10:00 am – 11:00 am*

Science is often detective work, looking for patterns in the chaos of the world around us. These patterns are in many ways akin to the notes and measures in a passage of music. Researchers benefit from mathematical tools which empower them to distill patterns from a clutter of distractions, in much the same way one can pick out a distant melody against the background of a noisy room. The powerful mathematical technique of Fourier Analysis will be introduced and explored for the lay audience, from the perspective of an astrophysicist who uses it to explore the universe at the highest levels of resolution.

Friday, April 7

Breakout Sessions 1 11:10 - 12:00 pm

Culturally Affirming Precalculus: Teach Grounded in Arizona as Place!
Guadalupe (Guada) Lozano, University of Arizona
Room 459

We explore the design and the opportunity to teach of a new, strengths-based, precalculus course grounded in Arizona and the Southwestern US as place and identity. We discuss how the culturally affirming contexts featured in this curriculum and its lessons, can support rigorous and authentic mathematics for all students, enhancing mathematics learning along with cultural competency, curiosity and togetherness for all. We focus on an upcoming opportunity to participate in professional development to teach this course, then pilot it at your institution over 2024-25, either as a standard course or a dual enrollment offering.

Building Thinking Classrooms- Getting Started!
Janelle Chisholm, Northern Arizona University
Room 460

Join us as we experience a Thinking Classroom experience described in Peter Liljedahl's research. Participants will solve an interesting task working in groups of three at vertical non-permanent surfaces. I have used this model for my students for several semesters and the results are simply amazing!

Open Textbooks for Rural Arizona Grant and OER, How Do I get Started?
Andrea Schaben, Yavapai College
Kathryn Kozak, Coconino Community College
Room 505

This presentation will cover our experience with creating OER material, from getting started to scaling up. We want to address why we use OER materials and how they can level the playing field for students struggling to make ends meet. We will talk about finding, vetting, and adapting open-source materials, specifically homework systems. We will also discuss specifics of the Open Textbooks for Rural Arizona Grant for anyone interested in getting funding for their work.

Introducing Derivita
Mallory Dyer and Josh Dyer, Derivita
Room 509

In this session, Mallory Dyer will preview Derivita’s newest features including: Assignment Assembly (with access to 75,000+ questions), Show Work for capturing handwritten student work, and Spotcheck, a synchronous, online tool that encourages real-time student participation (even on Zoom!).

Sexism, Racism, Food Insecurity: Research Mathematician
Pat McKeague, MathTV
Room 510

Sophie Germain, Ramanujan, and David Blackwell all had to overcome severe obstacles to become research mathematicians. What can we learn from their journeys, and how can we bring their stories, and their work, into our courses to help educate and motivate our students.

Breakout Sessions 2 1:40 - 2:30

ChatGPT: Friend or Foe?
Deborah Hughes Hallett, University of Arizona
Room 459

Since its arrival in November, ChatGPT has generated a huge range of responses: Alarm, wonder, despair, amazement, and a great deal of curiosity. In this session, we will talk about how math instructors might deal with it. Ban it? Embrace it? To spark the discussion, we will look at how ChatGPT answers math questions.

The Changing AGEC
Kathryn Kozak, Coconino Community College
Room 460

The Arizona General Education Curriculum (AGEC) has been in place since the mid 1990s. The Arizona Steering Committee has recommended that the AGEC should be updated. This is your chance to put your voice into what the new AGEC will look like. This session will present the current changes proposed while spending the majority of time on the outcomes for the mathematics portion of the AGEC. Come help the AGEC evolve.

Active Learning Lessons and Lesson Study Change Teaching and Learning
Emily Whittington, Pima Community College
Darla Aguilar, Pima Community College
Koli Tanksley, Pima Community College
Room 505

Professional Learning Communities (PLCs) met monthly to create active learning lessons and subsequently engage in lesson study surrounding those lessons. Lessons built for the courses in the Pathway to Calculus Sequence (Intermediate and College Algebra, PreCalculus and Calculus) are shared and participants are invited to engage in lesson study.

Increasing Access with Mathematics Placement

Katie Louchart, Northern Arizona University
Robert Daugherty, Northern Arizona University
Mary Fule, Northern Arizona University
Joseangel Gonzalez, Northern Arizona University
Shannon Guerrero, Northern Arizona University
Victoria Vakarchuk, Northern Arizona University

Room 509

Success rates and eventual degree attainment for students placed in postsecondary developmental courses has traditionally been discouraging, and students of color are disproportionately impacted by remedial requirements. A recent study estimated that 50-60% of racial achievement gaps in completion of degrees, certificates, and transfers to four-year institutions are explained by students' initial placement into English and math courses. The NAU Math Placement Committee regularly assesses their existing multiple measures placement structure, investigates national math placement trends, and explores ways to improve math placement at NAU.

The committee has recently engaged in two separate activities that both have equity and access implications. First, in the fall of 2018, we formed a group of randomly selected students formerly placed in the lowest developmental course, and placed them directly into the subsequent mathematics course (as dictated by their chosen major). Secondly, in the fall of 2022, we added High School Core GPA as a math placement indicator to our established multiple measures placement system. In this talk, we will share outcomes and insights from both activities, including the implications for STEM versus non-STEM math pathways, impacts on overall enrollments and course planning, and increased access to degree-required math courses for students, including students of color and first-generation college students.

A Textbook Like No Other

Pat McKeague, XYZ Textbooks

Room 510

Our new textbook has all the course materials built right into the textbook, whether it is the eBook or the print book. Instructional videos, enrichment videos, worksheets, electronic quizzes, and a grade book are accessible from the book itself. No need to go to other websites. Too good to be true? Come and see for yourself.

Breakout Sessions 3 2:40 - 3:35

3A 2:40 – 3:05

Unlocking Learning Potential: Exploring the Power of Mathematics TACTivities
Cindy York, Northern Illinois University
Angie Hodge-Zickerman, Northern Arizona University
Room 459

Join our interactive session and put the "fun" back in math fundamentals! Help uncover TACTivities' (tactile learning activities) impact on mathematics engagement, collaborative problem-solving, and learning outcomes using tools such as the Classroom Engagement Inventory and Learning Object Evaluation Scale. Learn about our research study and even play with TACTivities firsthand. We need participants from all walks of mathematics to help us examine the use of TACTivities in mathematics learning. Teachers, students, faculty members, your voices are important. Share thoughts on the design of TACTivities and their impact on learning. Don't miss contributing to cutting-edge research in mathematics education.

Pedagogy for Implementing the Equity Triangle
Matthew Isom, Arizona State University
Room 460

A conversation about embracing the first principle for school mathematics stated by the NCTM. The Equity Principle: Excellence in mathematics education requires equity-high expectations and strong support for all students. I would like to introduce to other mathematics teachers a pedagogical tool I refer to as the equity triangle. How it can be implemented daily and become a valuable foundation for developing lectures, lessons or other activities in our mathematics classrooms.

Formative Assessment in a University Precalculus Class
Katie Boggess, Northern Arizona University
Shannon Guerrero, Northern Arizona University
Room 509

Formative assessment is often used to promote student reflection and to inform teaching practice. This presentation showcases the results of an Action Research Project focused on the use of formative assessment in a university level precalculus course. Formative assessment tasks and techniques were created and adapted to align with the content of the course and were used to foster deeper student reflection as well as inform instructional decision making of the instructor. Outcomes regarding student reflective habits, informed instructional practices, and applications for future practice are detailed in this informative presentation.

Arizona High School Updates and Perspectives
Eboney McKinney, Arizona Department of Education
Laurel Cherry, Arizona Department of Education
Room 510

ADE will be sharing multiple updates based on Arizona legislation. We will also be discussing our partnership with The Dana Center in reference to high school and post-secondary mathematics pathways.

3B 3:10 – 3:35

The Sacred Side of Mathematics: Sangaku in Edo Period Japan and Their Influence Today
Lina B Ellis, Northern Arizona University
Room 459

Sangaku, or calculation tablets, are wooden tablets detailing geometrical problems, displayed prominently in Shinto shrines and Buddhist temples throughout the Edo Period Japan. The unique placement of these mathematical tablets at locations of religious or societal importance, and the inclusion of the solution at the end, implies that these were not only offerings to religious entities, but also a fun puzzle for the general public. This paper focuses on this approach to math education in the context of the history of mathematics in Japan, the role of Sangaku, and its influence on the modern day Japanese approach to teaching mathematics.

Do Second Attempts Improve Student Success? Is There Really a "COVID Effect"?
Ellie Blair, Northern Arizona University
Room 460

Two questions: 1) Does student success improve given multiple attempts on exams? 2) Did exam scores really drop after we returned from COVID? An analysis was performed on NAU Precalculus data from all classes from Fall 2016 to Fall 2021 which showed 1) that although students scores would increase from first to second attempt on the test, the multiple attempts did not improve scores compared to only one attempt and 2) that there certainly is a “COVID effect” when it comes to test scores post COVID.

Reflective Practice in Developmental Mathematics
Kim Schultz, Chandler Gilbert Community College
Room 509

Students often begin developmental math classes with fear and apprehension. One way to lessen the fear is to create reflective thinkers. In this session, I will share strategies that I have been successful in my developmental math courses along with student reflections on those strategies.

3C 2:40 – 3:30

The Keep in School Shape Program: History, Research, and Potential
Carla van de Sande, Arizona State University
Online Undergraduate Research Scholars
Room 505

If you don't use it, you lose it. It's true for physical skills, but cognitive skills also need to be regularly rehearsed to stay fresh. When they aren't, significant learning loss may occur. The Keep in School Shape (KiSS) Program delivers daily review opportunities via text or email to students over academic breaks so that they maintain critical skills for future coursework. In this talk, we share the evolution of the KiSS Program, present data showing how students engage with the KiSS Program, and discuss the potential of programs like this to reach students when school is not in session.

Breakout Sessions 4 and Business Meeting 3:50 - 4:40

The Art of Creating Problems
Brian Beaudrie, Northern Arizona University
Room 459

Problem solving should be at the heart of the mathematics we teach. Mathematics teachers at all levels should often use high-level, challenging problems in their teaching, but finding such problems is often time-consuming. So where do these problems come from? Perhaps you can create your own! This session will provide you with some time-tested strategies for creating your own mathematics problems for the classroom. These strategies can also be used to help students develop problems as well. It may even change your view on the "typical" math problem!

Trauma-Informed Math Instruction K-12
Janelle Chisholm, Northern Arizona University
Room 460

Students often come to school with ACES (adverse childhood experiences) that affect their ability to learn. In this session, specific strategies will be shared to mitigate the effects of the trauma. If you are a new teacher, or future teacher, this session is for you!

ArizMATYC Business Meeting - All are welcome!
Room 505

Come join us at the ArizMATYC business meeting. All are welcome!

Using Adaptive Courseware in Introductory Mathematics Classes

Sarah Watson, Northern Arizona University
Gina Nabours, Northern Arizona University

Room 509

We recently switched to using a fully-adaptive courseware in our MAT 108 (Algebra for Precalculus) course. In this presentation, I would like to share why we chose to switch from a more traditional courseware to a fully-adaptive one, our successes after implementing this change, and the tools and skills needed to effectively teach an introductory course that uses only adaptive assignments and assessments. I also plan to talk about the potential impact that this kind of course approach has on the quality of teaching and learning at the college level.

Progress on the Algebra++ Initiative

John Chu, Algebra++

Room 510

Algebra++ is a planned series of textbooks e-published as spreadsheets
founded on the core tenets of computer science. The SpreadSheet(SS) here is a medium for organizing and communicating math (not so much as a calculating device). Device and platform agnostic ==> runs on any old PC, phone, tablet. Online friendly, but also Stand-alone ==> No Net Needed. Bandwidth is a non-issue. SS has broad tech support, as a standard office app for 30+ yrs.

Meet the NEW McGraw Hill ALEKS

Meet your students where they are.
Break down their learning barriers.
Build on their knowledge base!

ALEKS is a course assistant that helps math and chemistry instructors forge Constructive Learning Paths for their students – blending personalized modules with instructor-driven assignments to ensure every student always has another block to build on their knowledge base.

RING TOSS TO WIN CONTEST – BRING THIS AD WITH YOU TO OUR BOOTH!

Prizes for ring toss at the McGraw Hill ALEKS Booth:

- **Tier 1** (Play to Win): Pen or Stress Ball
- **Tier 2** (Hit the Target): ALEKS Mug
- **Tier 3** (In the Zone): 26oz RTIC bottle or $25 Gift Card

What's coming next?
The ALEKS team is constantly developing enhancements and conducts research with instructors and students across the country to ensure ALEKS is the best platform it can be. Scan the QR Code to learn more about new releases.

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Keynote Speaker Information

Dr. Gerard van Belle is an Astronomer at the Lowell Observatory, and previously Director and then Chief Scientist of the Navy Precision Optical Interferometer (NPOI), both in Flagstaff, Arizona. He is an internationally recognized expert in the construction, commissioning, and use of optical telescope arrays, for carrying out astronomical observations at the highest levels of spatial resolution, including IOTA, PTI, Keck Interferometer, CHARA, VLTI-PRIMA and -MATISSE, and NPOI. His telescope projects have been pioneering in the fields of stellar surface imaging and characterization of exoplanet host stars. At home he is a not-quite-incompetent homebrewer, and is restoring a vintage pinball machine.

Presenters Information

Dr. Darla Aguilar is the Mathematics Department Head at the Desert Vista campus and she supervises the Integrated College Studies mathematics course. She has worked at Pima Community College since 1999.

Ellie Blair has worked in the Department of Mathematics and Statistics at NAU for 12 years. She is currently an associate teaching professor and is the MAT125 (Precalculus) coordinator.

Dr. Brian Beaudrie is an Associate Professor of Mathematics Education at Northern Arizona University. He thanks you all for coming to this presentation. And he hopes you like creating problems as much as he does!

Katie Boggess is a second-year graduate student pursuing a Master of Science in Mathematics Education at Northern Arizona University. She works as a Graduate Teaching Assistant in the Department of Mathematics & Statistics and serves as the primary instructor for a set of undergraduate math courses.

Laurel Cherry is a K-12 Math Specialist with Arizona Department of Education

Janelle Chisholm has been a teacher since 1991, and was awarded National Board Certification in Early Adolescent Math in 2009. She currently teaches Elementary Math Methods, incorporating multiple modalities to engage all learners. She is a seasoned presenter, with over 12 years of experience. Her workshops are always engaging, relevant and practical.

John Chu is a 30+ year veteran, teaching math and physics at the community college and high school level. He spend the last decade teaching in Asia, before returning to the US in 2021. He has used spreadsheets in the classroom since the early 90s, and the spreadsheet as whiteboard for 10+ years.

Robert Daugherty is a Teaching Professor of Mathematics in the Department of Mathematics and Statistics at Northern Arizona University and teaches primarily undergraduate statistics courses along with occasional mathematics classes. Robert has long assisted the department in the analysis of student data to improve placement and student outcomes. He currently serves on the Placement Committee.

Lina B Ellis is a graduate student in the Mathematics Education program at Northern Arizona University.

Presenters Information - Continued

Mary Fule, Manager and Tutor Supervisor in the Lumberjack Mathematics Center at Northern Arizona University, supervises math tutors and Peak Performance Math Summer Bridge Program. Mary's role includes coordination of math placement at NAU, including detailed math placement reports and math enrollment oversight.

Joseangel Gonzalez is a Program Coordinator in Northern Arizona University's Lumberjack Mathematics Center. He oversees the recruiting, hiring, training, and supervising of math coaches for the Peak Performance Math Summer Bridge Program, and manages and adjusts its student target population. He currently serves on the Placement Committee.

Shannon Guerrero is a professor of Mathematics Education at Northern Arizona University and teaches undergraduate and graduate mathematics content and pedagogy courses. Shannon is a President's Distinguished Teaching Fellow and currently serves as the Associate Chair for the Department of Mathematics & Statistics and as a co-director of the NAUTeach program for secondary mathematics and science education majors.

Dr. Angie Hodge-Zickerman is an Associate Professor of Mathematics Education in the Department of Mathematics and Statistics at Northern Arizona University. She conducts research in active learning, the interplay of technology and active learning, online learning strategies, and equity in the STEMathematics fields.

Deborah Hughes Hallett is a Professor of Mathematics (U Arizona) and Professor of Public Policy (Harvard Kennedy School)

Matthew Isom is a long time teaching faculty at ASU

Kathryn Kozak has been teaching mathematics and statistics at Coconino Community College, in Flagstaff, AZ for the last 29 years. Currently she is the lead faculty for Mathematics and Accounting. She is currently the Immediate Past President of AMATYC. She was one of the authors of AMATYC's IMPACT document. She was also a co-PI on the StatPREP grant and is a co-PI on the CURM grant.

Katie Louchart is a Teaching Professor of Mathematics at Northern Arizona University. She is also the Placement Director for the Department of Mathematics and Statistics, and is pro-active in designing and implementing student-centered math placement policies. She teaches freshman-level mathematics courses to mostly non-majors, and frequently serves as a course coordinator for these courses.

Dr. Guadalupe (Guada) Lozano grew up in Argentina. She holds a faculty position in Mathematics at the University of Arizona and oversees a university-wide center on research on teaching and learning housed under the Office of the Provost. Trained as a mathematician, Guada contributes to local, national, and international efforts on equity, STEM professions, and public schools. A current grant-sponsored project she loves, is the creation of a culturally-affirming precalculus dual-enrollment course, centered in Tucson, its people and identity. In 2021 Guada was named a Notable Woman in Math by the Association for Women in Mathematics, and featured in the inaugural deck of Even Quad Playing Cards for her contributions to STEM education research, teaching, learning, and equity. Guada has presented at AMATYC numerous times and is a member of the organization's Equity Committee.

Presenters Information - Continued

Pat McKeague earned his BA in Mathematics from California State University, Northridge and his MS in Mathematics from Brigham Young University. He has written over 25 textbooks in mathematics. Pat is the recipient of the AMATYC Presidential Award, and the AMATYC Herb Gross Lifetime Achievement Award for his service to the two-year college mathematics community. Twelve years ago he started his own publishing company, XYZ Textbooks, with the goal of lowering the cost of mathematics textbooks for community college students.

Eboney McKinney is the Director of Math and Ed Tech Standards with the Arizona Department of Education

Gina Nabours is the Director of the Lumberjack Mathematics Center and an Assistant Teaching Professor in the Department of Mathematics and Statistics at NAU. Gina is passionate about teaching first-year students at NAU and focuses on initiatives to increase first-year student success in mathematics.

Andrea Schaben has been teaching for 24 years with experience spanning from middle school to college. She is in her eighth year at Yavapai College, serves as the department chair and faculty lead for the Open Textbooks for Rural Arizona Consortium. She is in the process of adapting or building her fourth OER course for YC.

Kim Schultz's career started as a math specialist, working with remedial students in the K-8 setting. She spent several years as a district math coach and Master Teacher doing teacher observations and providing several staff development sessions each week. This is her 9th year at CGCC and she firmly believes that a positive mindset can change a student's perspective of mathematics. She teaches with passion and truly believes she has the best job in the world.

Koli Tanksley has been teaching at Pima Community College since 2004. She is the Discipline Coordinator for Pima's PreCalculus course. She enjoys photography and travel.

Carla van de Sande is an Associate Professor of mathematics education at Arizona State University. Her research focuses on student engagement and mindset, together with the design of resources to empower students as they learn mathematics in face-to-face and online environments. In particular, she is interested in how instructional design can promote a positive learning experience, particularly for discouraged students. One major strand of her work involves the Keep in School Shape (KiSS) Program, an accessible and student-centered review program that encourages students to adopt a growth mindset as they engage in daily rehearsal of critical skills over academic breaks.

Victoria Vakarchuk is an Assistant Teaching Professor of Mathematics in the Department of Mathematics and Statistics at Northern Arizona University. Victoria mostly teaches Calculus classes and often is the lead for Calculus 2. She currently serves on and gathers data for the Placement Committee.

Sarah Watson is an Assistant Teaching Professor in the Department of Mathematics and Statistics at Northern Arizona University (NAU). She has been teaching a variety of undergraduate mathematics courses at NAU since 2015. She is currently the Course Coordinator of MAT 108 (Algebra for Precalculus) and has been serving in this role since the Fall 2021 semester.

Presenters Information - Continued

Emily Whittington teaches primarily PreCalculus Accelerated and Integrated College Math at Pima CC since 2015. She has been the Mathematics Department Head of one of our five campuses since 2020, and is focused on active and inquiry-based learning, equity in grading, and student success. She is a Project ACCCESS Cohort 17 Fellow, and the Principal Investigator for Pima CC's Teaching for PrOwESS grant. She is also a board member for our Southern Arizona and the national COMMIT organization.

Dr. Cindy S. York is an associate professor of instructional technology. She does novice/expert research, instructional design and online teaching and learning, and is currently on sabbatical working on the impact of TACTivities and mathematics learning.

Commercial Presenters Information

Derivita - Prior to joining Derivita, Mallory Dyer spent eight years as a mathematics professor at Central Arizona College. Mallory taught courses from Prealgebra to Calculus III and is passionate about math education. At Derivita, Mallory partners with high schools, colleges, and universities across the country to provide tools, technology, and professional learning to improve math teaching and learning.

McGraw Hills ALEKS - Andrew Kennon is a former High School Math Teacher and Math Faculty at Florida State College, Jacksonville.

XYZ Textbooks and XYZ Homework - Pat McKeague earned his BA in Mathematics from California State University, Northridge and his MS in Mathematics from Brigham Young University. He has been involved with community college mathematics for over 40 years. Pat is very active in the mathematics community giving presentations at mathematics conference around the country. Ten years ago he started his own publishing company, XYZ Textbooks, with the goal of lowering the cost of mathematics textbooks for community college students.

Vendor Acknowledgement – Breakfast and Lunch Sponsorship

Thank you to **XYZ Textbooks and XYZ Homework**, who helped sponsor the cost of lunch.
Thank you to the **CCC Foundation** who helped sponsor the cost of both breakfast and lunch.

Thank You

A special thank you to our keynote speaker and presenters for their time and effort in helping build an engaging and professionally enriching experience for all who attended, and to all our participating vendors who helped support this conference in various ways. Thank you, to everyone who attended this ArizMATYC conference. We hope you enjoyed the experience and we look forward to seeing you at future in-person conferences.

- The ArizMATYC conference committee
  Marcus Szwankowski (chair), Anne Dudley, Maxie Inigo, Kathryn Kozak, Maya Lanzetta, Frank Marfai, Madilyn Marshall, Cheryl Meilbeck, Shannon Ruth

Fall 2023 ArizMAYTC Conference

Friday October 6, 2023

Chandler Gilbert Community College

2626 E. Pecos Rd

Chandler, AZ 85225

More information to follow

CHANDLER-GILBERT COMMUNITY COLLEGE

A MARICOPA COMMUNITY COLLEGE

AMATYC
50 YEARS OF IDEAS

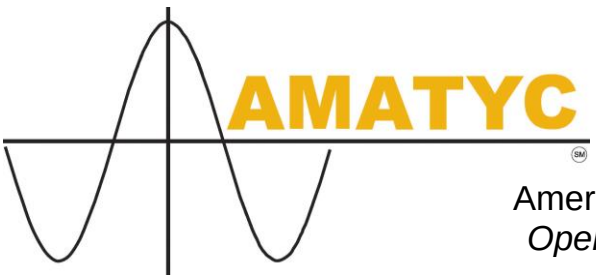
The Mathematics Leadership Excellence Award

The Mathematics Leadership Excellence Award (MLE Award), formerly known as the Mathematics Excellence Award (ME Award), is intended for educators who have made outstanding contributions through leadership in mathematics or mathematics education in the first two years of college. MLE award recipients are recognized in even-numbered years.

The following information is to be submitted for each nominee. The nominator must submit all items below as a single PDF document. All letters require a signature. Electronic signatures are acceptable.

- A formal cover letter and letter of recommendation from the nominator. The letter of recommendation may not exceed 3 pages.
- Nominee's resume or vita, not to exceed 3 pages.
- Two additional formal letters of recommendation, each no longer than 3 pages. The letters of recommendation should be submitted on college letterhead, when appropriate. Ideally, the letters of recommendation will elaborate on items from the resume or point out additional exemplary characteristics of the nominee, rather than reiterating items from the resume. At least one of the letters must be from a region other than the nominee's AMATYC region.

The nomination form is available on the AMATYC website. Nominations due by ***November 1, 2023.***



American Mathematical Association of Two-Year Colleges
Opening Doors Through Mathematics www.amatyc.org