

	9:30-10:00 a.m.	10:15-10:45 a.m.	11:00-11:30 a.m.	12:30-1:00 p.m.	1:15-1:45 p.m.	2:00-2:30 p.m.	3:00-3:30 p.m.	3:45-4:15 p.m.
KIERLAND 1A	▲ Math Education/ Teacher Prep Modeling in the Curriculum from 5th Grade Through Differential Equations Patrice Tiffany & Rosemary Farley Manhattan College ★	● Beyond Calculus The Importance of Modeling in Calculus and Differential Equations Courses Rosemary Farley & Patrice Tiffany Manhattan College ★	● Calculus Making Calculus Relevant Sharon Sledge San Jacinto College ★	■ Real World Applications Z(app) the Tedium: Apps and Applications for Liberal Arts Students Thomas Pirnot Kutztown University	● Calculus A Simpson Surprise Eric Schulz Walla Walla Community College	◆ Pedagogy, Assessment & Research Assessment for Online Statistics with or without Proctoring Rodica Cazacu & George Cazacu Georgia College	● Calculus Problem-Based Learning to Enhance Students' Achievement Lazara Ferrer & Marta Brito-Villani Miami Dade College	● Calculus Exploring Calculus with Mathematica Somaya Muiny Georgia State University
KIERLAND 1B	◆ Before Calculus							
	A Classroom Model for Increasing Learning and Success in Liberal Arts Math Scott Demsky Broward College	College Algebra Early Intervention: Success for Some - Failure for Others Phoebe Rouse, Debra Kopco & Stephanie Kurtz Louisiana State University ★	Using Geometer's Sketchpad to Solve Challenging Problems Mary Jane Sterling Bradley University	Geometry Explorations - Discovery At Your Fingertips with Classpad.net Karen Greenhaus Drexel University	Answering Questions with Educreations Outside the Classroom Pamela Webster Texas A&M Commerce	Linear Programming: Using Original Software To Enhance Teaching Timor Sever Houston Community College	Using Excel with Internet Data in an Introduction Quantitative Methods Business Course Cathleen Zucco-Teveloff Rider University	Flex Your Learning with Mastery Based Algebra Alison Bonner Pennsylvania State University
KIERLAND 1C			● Calculus		● Beyond Calculus	● Calculus	● Beyond Calculus	
			Fostering Classroom Interaction in Calculus Using Student Response Technology Przemyslaw Bogacki Old Dominion University ★	Using Technology to Increase Student Engagement in Online Calculus Courses Laurie Woodman University of Southern Maine	Discrete Math Resources for Continuous Learning Andrew Beiderman Community College of Baltimore County	Keeping in Summer Shape (KiSS) in Calculus Carla VanDeSande & Kayla Lock Arizona State University	Presenting a Comprehensive Library of GeoGebra Applets for Linear Algebra James Factor Alverno College	Number Theory + Python = a Perfect Partnering Irina Shablinsky Purchase College, SUNY
KIERLAND 4A	† Corequisite			† Corequisite				
	Flipping the Corequisite Statistics Course Michael Sullivan Joliet Junior College	Strategies to Improve Success for Online Math Students Fitzroy Farquharson Valencia College		Corequisite Implementation - Bootcamps or Semester Courses? Anne Fischer Tulsa Community College Jamie Blair Orange Coast College	CALL for a Coreq Kimberly Walters Mississippi State University	Accelerated Math Sequences: Methodology and Techniques for Coreqs & Math Jams Jennifer Crawford Normandale Community College Jamie Blair Orange Coast College Anne Fischer Tulsa Community College	Incorporating Mindsets into Corequisite Support Courses George Woodbury College of the Sequoias	A Corequisite Pilot - First Semester Results Salvador Vera Northern Arizona University
KIERLAND 4B	▲ Statistics				◆ Pedagogy, Assessment & Research	▲ Statistics		▲ Statistics
	Perfect Examples in Statistics Marty Triola Dutchess Community College	Random Number Generators, Simulations, and the Central Limit Theorem Paul Bouthellier University of Pittsburgh, Titusville	Apps in Intro Stat: Where, When and Why Bernhard Klingenberg Williams College	Using Technology to Foster Students' Conceptual Understanding of Correlation Melanie Autin Western Kentucky University Laura Taylor Elon University	A New Approach to the Flipped Classroom Wendy Fresh & Jessica Bernards Portland Community College	A Final Project Design: Three Phases for Success Carrie Grant Flagler College		Teaching Data Visualization with Power BI Maureen Petkewich University of South Carolina, Darla Moore School of Business
KIERLAND 4C	◆ MyLab Math & Statistics							
	Why Would I Ever Want to Use the Custom Question Builder? Gwen Terwilliger University of Toledo	Jazz Up Your e-Statistics Poster Board with StatCrunch Lourdes Espana & Maria Alvarez Miami Dade College	Personalizing MyLab Math to Improve Students' Success Rachid Ait Maalem Lahcen & Ram Mohapatra University of Central Florida	The Publishing World Is NOT Flat Nathan Ritchey Kent State University	ADA and Your MyLab Math & Statistics Course Diane Hollister & Greta Swanson Pearson	Results of Digital Courseware Project Using Learning Catalytics and Technology Eric Samansky & Jason Gershman Nova Southeastern University	Coordinator Courses in MyLab Math William Tschume Mississippi State University	Using Machine Learning to Get More Out of MyLab Math Data Aaron Smith Seminole County Public School
TRAILBLAZER E	◆ Pedagogy, Assessment & Research							
	Document Camera Fun! Thomas Carson Franklin Classical School	Diving Deeper: Does "Success" Mean All Are Succeeding? Brian Beaudrie & Barbara Boschmans Northern Arizona University	Trying the Trends: Flipped, Hybrid, Online, Video, Clickers, and More Brian Rickard University of Arkansas	How Technology Can Help Develop Student Writing Skills Jeffrey Clark Elon University	Learning Assistants in Blended Classrooms - Peer Learning On-site and Online Margaret Moore University of Southern Maine	The Role of Technology in Inverted Versus Traditional Instruction Reza Abbasian & John Sieben Texas Lutheran University	The Future Is High Tech - but Success May Be Low Tech Amy Bell Central Carolina Technical College	Cultivating Technologically Guided Culturally Relevant Mathematics Bathi Kasturiarachi Kent State University, Stark

	9:00-9:30 a.m.	9:45-10:15 a.m.	10:30-11:00 a.m.	11:15-11:45 a.m.	12:45-1:15 p.m.	1:30-2:00 p.m.	2:15-2:45 p.m.	3:00-3:30 p.m.	3:45-4:15 p.m.
TRAILBLAZER C		★ Corequisite FEATURED SESSION: A Corequisite College Algebra Course Michael Sullivan, <i>Joliet Junior College</i> Jessica Bernards & Wendy Fresh, <i>Portland Community College</i>							
◆ Before Calculus									
KIERLAND 1A	Is It Magic? No, It's Mathematics Terry Krieger <i>Rochester Community and Technical College</i>	Spreadsheets for Quantitative Reasoning: An Excel-lent Way to Engage Your Students with Mathematics Eric Gaze <i>Bowdoin College</i>	Quantitative Literacy for the Masses! Rachael Lund <i>Michigan State University</i>	Sequences, Discrete Functions, and Series Using Technology in College Algebra Lisa Yocco <i>East Georgia State College</i>	Assessing the Impact of the Emporium Model on Student Performance Kathy Cousins-Cooper, Dominic Clemence, Nicholas Luke, Seongtae Kim & Katrina Nelson <i>North Carolina A&T State University</i>	Trials and Triumphs at the MALL (Math Active Learning Lab) Michele Iiams, Tim Prescott & Gwennie Byron <i>University of North Dakota</i>	Inject Some Life into Your Classroom with Technology and Humor Kory Swart <i>Kirkwood Community College</i>	Animation and Simulation for Mathematics Courses Richard Herbst <i>Montgomery County Community College</i>	An Alternative Method for Solving Rational Inequalities Timor Sever <i>Houston Community College</i>
KIERLAND 1B	Calculus ◆ A Continuing Look into Calculus Placement Robert Banik <i>Mississippi State University</i>	◆ Beyond Calculus Designing a 3D Video Game with P5.js Paul Bouthellier <i>University of Pittsburgh, Titusville</i>	◆ Calculus Graphing Polar Curves Using Excel Nadeem Aslam <i>Florida International University</i>	◆ Calculus Creating Interactive Documents for Mathematics Education Daniel Skoog <i>Maplesoft</i>	◆ Beyond Calculus A Catapult Course in OpenScad for 3D printing Knarik Tunyan <i>Purchase College, SUNY</i>	◆ Pedagogy, Assessment & Research Assessing Modeling Meaningfully in a Freshman-Level Mathematical Modeling Course through Discovery Learning Assessments David Del Cuadro-Zimmerman <i>United States Military Academy, West Point</i>	◆ Beyond Calculus Evolution of Solitons via Excel Jay Villanueva <i>Florida Memorial University</i>	◆ Calculus Is Bread the Most Efficient Shape? Dwight Horan <i>Wentworth Institute of Technology</i>	◆ Calculus Multivariable Calculus Visualizations in GeoGebra and Virtual Reality Piotr Runge <i>Utah State University</i>
▲ Math Education / Teacher Prep									
KIERLAND 1C	Service Learning in a Mathematics Education Course Nikita Patterson & Kimberly Bennekin <i>Georgia State University, Perimeter College</i>	GAISE-based Statistics for the Elementary Teacher - Comparison of Students' Learning in Online and Face-to-Face Classes Cynthia Stenger <i>University of North Alabama</i>		Math and Reading Goes Hand-in-Hand Shannon Solis & Tonia Garrett <i>San Jacinto College</i>	Game Technology for the Active Learning Classroom Frank Ives, <i>University of La Verne</i>	Enhancing the Geometry Classroom with GeoGebra Projects Violeta Vasilevska <i>Utah Valley University</i>	Improving Preservice Teachers' Noticing Expertise Through Technology-Integrated Mathematics Content Courses Mi Yeon Lee <i>Arizona State University</i>	Fostering Imagination and Creativity with GeoGebra in Mathematics Teacher Education Dr. Joseph Furner <i>Florida Atlantic University</i>	
◆ Pedagogy, Assessment & Research									
KIERLAND 4A	The Pros and Cons of the Flipped Model Classroom Using IBL Caroline Caswell <i>Rhode Island College</i> Gail St. Jacques <i>Johnson & Wales University</i>	Cognitive Ease and STEM Courses ... Are we Helping Too Much? Jill Whealon <i>University of Maryland, University College</i>		Supporting Students Online Through Web Conferencing Christina Holdiness <i>University of California, Riverside</i>	Using PowerPoint to Create Videos for Teaching Mathematics Thomas Klein <i>Marshall University</i>	Making Calculus Videos and Incorporating Them into Teaching Mathematics Debra Carney <i>Colorado School of Mines</i>	Designing an Effective Mathematics Placement Test Jacob Dasinger <i>University of South Alabama</i>	Socrative App for Active Student Responses Vicki Ingalls <i>Tiffin University</i>	Integrating Parallel Notes Delivery and Study Sets Rachid Ait Maalem Lahcen & Ram Mohapatra <i>University of Central Florida</i>
■ Real World Applications									
KIERLAND 4B	Using Real World Data Means Math Solves Real World Problems Jason Gregersen <i>Michigan Technological University</i>	Changing Assessment from Silent Killers of Learning to Vibrant Learning Experiences with Examples Kristin Arney & Frank Wattenberg <i>United States Military Academy, West Point</i> ★	Engaging Students by Using Math and Stats to Inform Controversial Public Policy Decisions with Examples Kristin Arney & Frank Wattenberg <i>United States Military Academy, West Point</i> ★	Opioid Addiction: Modeling the Opioid Epidemic in the United States Kayla Blyman <i>United States Military Academy, West Point</i>	Turtle Power: Longitudinal Modeling Project in the Undergraduate Classroom Scott Lynch & Kayla Blyman <i>United States Military Academy, West Point</i>	Using Parking Lot Data Collection to Study Climate Science and Hot Cars in Introductory Math and Stats Bryan Adams <i>United States Military Academy, West Point</i>	Modeling with Student Centered Data in a Calculus Classroom Scott Warnke & Kristin Arney <i>United States Military Academy, West Point</i>	Understanding Differences Between American and Mediterranean Diets Azar Raiszadeh <i>Chattanooga State Community College</i>	
▲ Statistics									
KIERLAND 4C	A Graphical Interface for R and Python; Data Desk and Data Science Paul Velleman <i>Cornell University</i>	Goodbye Chalkboard! Hello Mobility! Iva Ballard <i>Mississippi State University</i>	Simulations via StatCrunch Applets George Bratton <i>University of Central Arkansas</i>	Simulation Tools for Introductory Statistics Barbara Bennie <i>University of Wisconsin, La Crosse</i> Erick Hofacker <i>University of Wisconsin, River Falls</i>		Activities for Introductory Statistics Carla Hill <i>Marist College</i>	Is There Room for Data Science in an Introductory Statistics Class? Robert Gould <i>University of California, Los Angeles</i>		
TRAILBLAZER E	◆ Before Calculus The Mathematics of the Movie Gifted Marv Bittinger <i>Indiana University - Purdue University Indianapolis</i>	◆ Pedagogy, Assessment & Research Effective Use of Technology in Teaching Collegiate Math Courses Kuppalapalle Vajravelu <i>University of Central Florida</i>	◆ Calculus An Interactive, Activity-based, Technology-driven College Algebra Classroom - Will You Survive? Ralph Bertelle <i>Columbia-Greene Community College</i> Ernie Danforth <i>Corning Community College</i> Trish Shuart, <i>Polk State College</i>	◆ Calculus GeoGebra Tools for Visualizing Integration (with Mapping Diagrams) Martin Flashman <i>Humboldt State University</i>	◆ Calculus Using CalcPlot3D to Create Dynamic Figures for OER Textbooks and to 3D Print Surfaces for Multivariable Calculus and Beyond Paul Seeburger <i>Monroe Community College</i>	◆ Before Calculus Quantitative Reasoning Explorations Sarah Mabrouk <i>Framingham State University</i> ★	◆ Corequisite Using Technology in Group Activities in Co-Requisite College Algebra Courses Barbara Johnson <i>Indiana University</i> Judith Beecher <i>Purdue University Indianapolis</i>		

PRE-CONFERENCE WORKSHOPS: Thursday, March 14

MyLab Math and MyLab Statistics Workshops*

	8:00-9:45 a.m.	10:00-11:45 a.m.	1:00-2:45 p.m.	3:00-4:45 p.m.
MERRIAM	◆ MyLab Math & Statistics			
	Teaching Successful Online Math Courses Calandra Davis <i>Pearson</i>	Creating a Course: Results by Design Calandra Davis <i>Pearson</i>	Teaching Corequisite Courses with MyLab Math & MyLab Statistics Stephanie Walker <i>Pearson</i>	Creating a Course: Results by Design Stephanie Walker <i>Pearson</i>
LOWELL	◆ MyLab Math & Statistics			
	Using MyLab Statistics and StatCrunch Diane Hollister <i>Pearson</i>	Using Learning Catalytics Diane Hollister <i>Pearson</i>	Custom Question Builder - The Basics Diane Hollister <i>Pearson</i>	Best Practices for Managing Assignments Diane Hollister <i>Pearson</i>

*Participants of the MyLab Math™ and MyLab Statistics™ pre-conference, hands-on workshops can earn Continuing Education Units.

*Thursday workshops and pre-conference sessions require additional fees. Registered participants will receive breakfast and lunch as part of the registration fee.

MINI-COURSES Friday, March 15

DON'T MISS: Breakfast & Keynote Address 8:00 a.m.

	10:00-11:30 a.m.	12:30-2:00 p.m.	2:15-3:45 p.m.
MERRIAM	◆ Before Calculus	■ Real World Applications	
	Graphing with GeoGebra David Ray <i>University of Tennessee, Martin</i>	Assessment: From a Silent Killer of Learning to an Active Driver of Deeper Learning Kristin Arney, Kayla Blyman, Lisa Bromberg, Scott Lynch, Scott Warnke & Frank Wattenberg <i>United States Military Academy</i> ★	Drones, Climate Science, Hot Cars, Personal and Public Health Policy and Math Bryan Adams, Diana Thomas & Frank Wattenberg <i>United States Military Academy</i>
LOWELL	◆ Before Calculus	■ Real World Applications	● Calculus
	Modeling with Spreadsheets Eric Gaze <i>Bowdoin College</i>	Welcome to Mathematica® Jason Gregersen <i>Michigan Technological University</i>	Enhance Your Mathematics Classroom Using Active Learning and Technology Angie Hodge, Northern Arizona University Cindy York, Northern Illinois University
TRAILBLAZER A		● Calculus	Ⅹ Teaching Math Online
		Maple for the Classroom: Tips, Tricks, and Techniques Douglas Meade <i>University of South Carolina</i> Phillip Yasskin <i>Texas A&M University</i> ★	Camtasia: Beginnings Sarah Mabrouk <i>Framingham State University</i> ★

MINI-COURSES Saturday, March 16

DON'T MISS: Breakfast & Keynote Address 8:00 a.m.

	9:00-10:30 a.m.	10:45 a.m.-12:15 p.m.	12:45-2:15 p.m.	2:30-4:00 p.m.
MERRIAM	● Calculus	✦ Corequisite		
	Visualizing Multivariable Calculus & Differential Equations Using CalcPlot3D Paul Seeburger <i>Monroe Community College</i>	Designing an Effective Corequisite Program, Including Algebra and Statistics Activities Jay Lehmann <i>College of San Mateo</i>		
LOWELL	● Beyond Calculus	Ⅹ Teaching Math Online	◆ Pedagogy, Assessment & Research	▲ Math Education/Teacher Prep
	Using a Comprehensive Library of GeoGebra Applets for Linear Algebra James Factor, Alverno College Susan Pustejovsky <i>Alverno College</i>	Camtasia: Video Editing Sarah Mabrouk <i>Framingham State University</i> ★	Mobile Apps for Encouraging Student Interaction in Math Classes Revathi Narasimhan <i>Kean University</i>	Using Desmos to Encourage Mathematical Discourse and Reasoning Erick Hofacker <i>University of Wisconsin, River Falls</i>
TRAILBLAZER A		▲ Math Education/Teacher Prep		▲ Statistics
		Proofs without Words Demonstrated in Active Videos John Diamantopoulos <i>Northeastern State University</i> ★	GeoGebra Tools for Creating Mapping Diagrams: From Worksheets to Books Martin Flashman <i>Humboldt State University</i>	Teaching an Online Statistics Course Using MyLab Math <i>Statistics</i> Sam Zhang <i>Union County College</i>
TRAILBLAZER B	◆ MyLab Math & Statistics			
MAPMAKER B	◆ MyLab Math & Statistics			
	Custom Question Builder - The Basics Diane Hollister, <i>Pearson</i>	Using Learning Catalytics Diane Hollister <i>Pearson</i>		