

ORMATYC 2021 Annual Conference – Friday, April 23, 2021 – Virtual Conference Program Details

Yoga Class with Eric Ziegler: 6:15 am – 7:00 am

Join me for an accessible and invigorating power yoga class via ZOOM. All you need is a yoga mat, comfortable workout clothes, water and a towel. Please join the class a few minutes before 6:15AM so we can start right away and finish by 7:00 AM.

ORMATYC Business Meeting 8:00 am– 8:30 am

Agenda items include: AMATYC updates, treasurer's report, future conferences, and vote on new logo and by-law change.

Session 1 Presentations: 9:00 am - 9:45 am

Using “Get It Quick” Videos to Promote Student Learning

Lori Holdren will share her experiences in creating short content videos for her asynchronous online classes. She went from posting longer recordings from weekly sessions that students rarely viewed to posting short topic videos that many more students watch and compliment on. While these videos are used for asynchronous online courses, they could be used in regular, hybrid, and flipped classes.

Presenter: Lori Holdren is the General Education Program Chair and mathematics professor at the American College of Healthcare Sciences, an online school based in Portland, OR that specializes in integrative health and wellness. She relocated to Oregon in 2016 after teaching for twenty-six years in Florida, spending time at both the State College of Florida and Florida Gateway College. She earned her BS in mathematics from Stockton University, her MA in mathematics from the University of Arizona, and her Ph.D. in Curriculum & Instruction in Math Education from the University of South Florida. She lives in Silverton OR with her partner, Gary, and four dogs. **email:** loriholdren@achs.edu

Taking Antiracist Action as a Math Instructor? Let's Do It!

The struggle against racism in Oregon and in the USA has gotten much more intense over the past few years. That struggle affects everyone in our communities, including us math instructors and our students. It can be difficult to think about how to engage in the struggle for racial justice in a math classroom. Let's work together to do so. Workshop participants will actively engage in developing understanding of antiracism; consider racism and antiracism in mathematics teaching; support one another to plan antiracist actions to take in our classes, departments, and institutions.

Presenter: Ralf Youtz, Portland Community College, teaches people about mathematics and statistics, so they can use analytical tools to empower themselves and to improve their communities. His work priorities are liberatory curriculum, open educational resources, universal design, and supporting educators working to build inclusive democracy. Off work, he does his best to keep up with his son, marches with a snare drum, and plays his ukulele. => ÷ **email:** Ronald.youtz@pcc.edu

Session 1 Presentations: 9:00 am - 9:45 am - *continued*

Modeling Disease Dynamics

Presentation of an easy lesson that can be provided to intro level students on modeling disease dynamics, estimating R_0 , herd immunity, and critical vaccination populations using incident case tracking, SIR models, and simple log-linear regression. This lesson has been presented in my courses in epidemiology, differential equations, sequences and series calculus, and even college algebra with great success and I'd like to pass this on to other faculty as a really poignant, current events example of how math and statistics can be used for decision making.

Presenter: Joseph Reid, OIT, is an Associate Professor in the department of Applied Mathematics and Statistics. He has earned a Master of Science in Applied Mathematics from the University of Washington, where he took coursework on nonlinear dynamics and their applications in disease models and a Masters in Applied Statistics from Penn State University where he took coursework on Epidemiology. **email:** joseph.reid@oit.edu

Lumen Learning Meet and Greet 9:45 - 10:30

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Lumen Online Homework Manager (OHM) is a robust online math homework engine and course building platform. Developed using open educational resources (OER), OHM offers the combination of rich OER content and tremendous flexibility to customize course templates to fit your needs. As an OER-based solution, OHM is extremely affordable (\$25 per student), while providing students the rigorous practice they need to master math and other quantitative subjects. Lumen's partnership with Desmos enables us to seamlessly integrate interactives and three types of calculators (basic, scientific, and graphing). Join us to see how easy it is to customize a course to meet your students' needs.

Presenters: Paul Golisch, Manuela Ambrosino Julie Jack, Kiana Pincock **email:** paul@lumenlearning.com

Session 2 Presentations: 10:30 - 11:15

Sharing our Math in Society OER and its Culturally Responsive Features

The Portland Community College Math in Society OER textbook is available for adoption or modification. We will share our book and its culturally responsive features: diverse mathematicians, names, pronouns, racial context and more. We will also share our process and resources for those working on OERs or class materials. We will share how we use technology, our MyOpenMath shell and ancillary materials.

Presenters:

Cara Lee is in her 15th year of teaching at Portland Community College and she has extensive practice in Euro-Celtic shamanism. She received an award for culturally responsive teaching at PCC and uses community-based learning projects in her courses. Her focus is on equity and access in mathematics, especially in math for liberal arts and statistics. She has led and/or contributed to three OER projects. **email:** cara.lee@pcc.edu

Jess Brooks is in her 15th year of teaching and 3rd year at Portland Community College. She previously served as the co-head of Trillium, a school which focused on constructivist, democratic education. She is partnered with PSU in their Math in Real Life lesson development program and has contributed to the Math in Society OER project at PCC. She also coordinates the peer mentoring program for the MESA scholars at PCC. She incorporates proficiency grading in her classes and focuses on making Mathematics education relevant and accessible. **email:** jess.brooks@pcc.edu

One Method of Fusing Flipped Classrooms with Online Instruction (from a Quantitative Literacy Perspective)

12 months into pandemic pedagogy, Sean wanted to reflect back on this longest of academic years EVER and share/trade/discuss methodologies that needed to be created/adapted/assessed on the fly. He'll bring what he did in his quantitative literacy classes (MTH 098/105/243), but also encourages others, if they like, to bring their own ideas for their own classes.

Presenter: Sean Rule, COCC, was born of Beast Coast lineage, which explains the excessive amplitude of his volume settings. He was evicted from Delaware for the charge of "egregious top knot" and sent Westward. Here, he traipses up mountains, tosses feathers to fish, and learns some folks some math. **email:** srule@cocc.edu

Session 2 Presentations: 10:30 - 11:15 continued

Statistics in Daily Life

Students see statistics in their daily life without recognizing them. Learn how to develop student engagement and ownership in class through course components that improve students' understanding of statistical concepts and critical thinking skills. Explore specific methods that can be incorporated in any statistics class that honor students' diverse backgrounds.

Presenter: Kaiwen Amrein, PCC, has been a part-time instructor at Portland Community College since 2015. Born and raised in Shanghai, China, Kaiwen went to undergraduate in University of Minnesota-Twin Cities, where she earned her B.A. degrees in both Math and Psychology. After that, Kaiwen obtained her M.S. degree in Math with Teaching Specialization from University of Illinois, Urbana-Champaign. Kaiwen believes the essence of education is in fostering students' critical thinking skills by engaging students to recognize connections between abstract concepts and their daily life. **email:** kaiwen.amrein@pcc.edu

Session 3 Presentations: 1:30 - 2:15 pm

Promote Active Learning and Engagement Virtually

Discuss strategies for promoting student engagement in a virtual/remote setting including how to get students technologically and mentally ready to participate, best practices for breakout rooms, best practices for finding and implementing activities in a breakout room, and synchronous vs asynchronous instruction. This presentation will focus on the remote classroom, but many of these strategies can be used in other formats.

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Presenter: Austina Fong, PCC, has been a full-time math instructor at Portland Community College since 2014 and has been teaching for over 13 years, primarily Calculus. She has experience teaching in face-to-face, flipped, remote, and fully online formats and also serves as the Online Faculty Mentor where she provides guidance and mentorship on best-practices for online learning. During the remote period surrounding the pandemic, Austina assisted with training and mentored math faculty in using Zoom and in setting up their remote courses in Desire2Learn (D2L). **email:** austina.fong@pcc.edu

Virtual Courses Require Mastery-Based Solutions

In today's virtual landscape, how do we ensure that students are truly grasping course content? A competency-based approach to learning is a clear solution that sets goals for students and gives them the flexibility and resources to achieve them. Discover how a mastery-based, 3-step approach fosters genuine competency by removing learning aids, adapting to individual proficiencies, providing corrective remediation, and allowing instructors to intervene before students fall behind, all with a low-cost, lifetime license for students. Attend to win one of three \$25 Amazon gift cards!

Presenter: Sarah Peterson with Hawkes Learning

Achieve Success with Online Homework in Calculus

Join two mathematics instructors as they share their successes implementing Macmillan's Achieve online platform in their Calculus classes. The variety of options available to instructors and students make this a flexible choice for entire departments to adopt. You can observe the use of pre-class reading, practice and interactive materials, online homework and testing options, embedded Desmos tools and video clips, as well as iClicker polls/quizzes aligned with the course content.

Presenters:

Sheri Rogers has been teaching at Linn-Benton for 11 years. She also served as full-time math faculty at Cleveland Community College in Shelby, NC for 10 years. She has been involved with mentoring and assessment, creating a shorter sequence to MTH 105, coordinating department work on the developmental math curriculum redesign from 4 courses to 3, Math Fast Track and the Math Café. This year she has been developing virtual versions of Math Fast Track, Trigonometry, Differential and Integral Calculus. **email:** rogerss@linnbenton.edu

Kiandra Johnson: As a Senior Instructor of Mathematics at Spelman College, Kiandra Johnson consistently strives to not only challenge students but to make mathematics relatable, engaging, and easy to understand. A native of New Orleans, LA, she received a Bachelor of Science from Xavier University of Louisiana and Master of Science from Emory University in Atlanta, GA. Kiandra is committed to encouraging students to show them that everyone can succeed in mathematics. This commitment inspires research and implementation of various pedagogical techniques to teach today's student. **email:** kiandrajohnson578@gmail.com

Session 3 Presentations: 1:30 - 2:15 pm *continued*

Oregon Strong Start to Finish

Building off Developmental Education Redesign work done by our community colleges in 2014 and funded by a Strategy Site Grant awarded from Strong Start to Finish, Oregon is initiating a yearlong effort to implement statewide adoption of corequisite support in Mathematics. Co-led by the Oregon Community College Association (OCCA) and the Higher Education Coordinating Commission (HECC), this student success strategy builds on rigorous research, recommendations from Oregon faculty and staff from the 2014 redesign work, and structural transformations already underway with the transition to Guided Pathways models for students. In our presentation we will present on the background, goals, and progress of this work to date.

Presenters:

Kia Sorensen, Ph.D. is an Academic Policy Specialist in the Office of Academic Policy and Authorization at the Oregon Higher Education Coordination Commission (HECC), where she leads work on postsecondary transfer and articulation, as well as math education reform. Prior to her work at the HECC, as a research analyst, Kia helped lead the redesign of the Oregon Department of Education school and district "At-A-Glance" statewide report cards. Kia also has a background in research and teaching. Her research focuses on the intersection of education, policy, and family and has been published in Research in Higher Education, The Future of Children, and Early Childhood Research Quarterly. Kia received her B.A. in sociology and interdisciplinary visual arts from the University of Washington and an M.S. and Ph.D. in sociology from the University of Wisconsin-Madison. **email:** kia.sorensen@hecc.oregon.gov

Celeste Petersen is in her 5th year as a full- faculty member at Clatsop Community College. She previously worked as an adjunct at Clatsop for 20 years. Celeste has a masters of mathematics education from Western Governors University. In addition to her college experience she has taught every mathematics in grades 3 - 12. Celeste is passionate about helping students to find success at all levels of mathematics. She especially enjoys working with students who identify as having math anxiety. When she is not teaching math she enjoys cooking and camping. **email:** cpetersen@clatsopcc.edu

Chris Carlson is a math instructor at Tillamook Bay Community College for the past 2 years. He graduated from UC Riverside in 2012 with a PhD in Mathematics. He specializes in engaging students in online classes. He enjoys creating video games, has a YouTube channel with way too many instructional videos, and recently learned how to edit a video properly. When not teaching, he enjoys biking and sailing. **email:** chriscarlson@tillamookbaycc.edu

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Keith Schloeman has been a faculty member at Chemeketa Community College since 2013, where he is currently co-chair of the mathematics program. Keith has a masters in mathematics from Oregon State University, and he has previously taught at Linn Benton Community College and Oregon State University. Keith's goal is to see a learner centered mathematics curriculum that engages and supports all students. He enjoys teaching a variety of math classes and working with students at all levels. When not working he enjoys exploring the beautiful Oregon outdoors with his family. *email:* keith.schloeman@chemeketa.edu

Session 4 Presentations: 3:00 - 3:45 pm

Fair Division and Some Interesting Cases

Fair Division is the problem of dividing a set of resources among several people who are entitled to them, such that each person receive their fair share. They arise in various real-world situations such as divorce settlements, inheritance, and the all important problem of cutting a birthday cake to name a few. In this talk we will look into this problem and investigate some of the standard examples.

Presenters:

Dibyajoti Deb is currently an associate professor in the Applied mathematics department at the Oregon Institute of Technology. Dr. Deb has been with Oregon Tech since 2013. Before moving to Oregon Tech, he was a visiting assistant professor at the University of Toledo from 2010 until 2013. Dr. Deb completed his Ph.D. in mathematics from University of Kentucky in 2010. Apart from teaching mathematics, Dr. Deb is also interested in hiking, visiting national parks, and playing and making board and video games. Email - dibyajoti.deb@oit.edu

Kenneth Davis is currently an assistant professor in the Applied mathematics department at the Oregon Institute of Technology. Dr. Davis has been with Oregon Tech since 2016. Before coming to Oregon Tech, Dr. Davis was a faculty in the mathematics department at Hardin-Simmons University in Texas. Dr. Davis enjoys hiking and camping during his breaks between terms. Email - kenneth.davis@oit.edu

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Session 4 Presentations: 3:00 - 3:45 pm *continued*

Justice, Equity, Diversity, and Inclusion in Statistics Class

In this talk I'll share ways I bring social justice, equity, diversity and inclusion into my classroom, along with my failures and successes along the way. I'll present examples of changes I've made to my classes to be inclusive and equitable, from small changes to big changes. I'll define social justice and share how you can create your own activities that teach social justice and statistics. You'll leave with resources of fully-created activities. A short amount of time will be left at the end to share ways you've made your classes more equitable, diverse, inclusive and approachable to social-justice topics.

Zoom Access:

<https://us02web.zoom.us/j/86709127266?pwd=TmJPREpiUkxDVXJZOWxaQW1uTlZ6dz09>

Presenter: Jennifer Ward, MS Statistics, is an adjunct faculty member at Clark College and Portland Community College. Ms. Ward brings equity-mindedness and an intentionality within educational justice to her teaching practices. Therefore, she ensures her classes are accessible, promote inclusivity, and include activities to bring awareness to important social justice topics. Her students are taught to be critical thinkers within statistics that allows them to understand broader social contexts and implications related to how data is gathered, who benefits, and who is harmed by the results of their statistics work. Ms. Ward's leadership has been evident in the creation of Clark College's Adjunct Faculty Mentorship program and nationally, with the ASA's Section on Statistics and Data Science Education Mentoring committee. **email:** jsward@clark.edu

Customizing Hawkes Courses for Any Environment

Join us to learn how to tailor the Hawkes automated homework system to create a more focused learning experience for your students. This presentation will share practical tips and get a walkthrough of customization options to meet the needs of online, hybrid, and in-person learners in synchronous and asynchronous environments. Get recommendations for course set up and suggestions on how to create an interactive learning experience, edit pre-built instructional content to engage students, design assessments with personalized settings, build your own questions, and more in Hawkes. Attend to enter to win one of three \$25 gift cards.

Zoom Access: Meeting ID: 978 5343 8216. Passcode: 123456

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Presenter: Sarah Peterson with Hawkes Learning

Closing Session and BYOB Social 4:00 - 5:00

Woo Hoo! Time to celebrate! Bring your beverage of choice as you join the ORMATYC Executive Board and colleagues as we bring the first (and hopefully only) virtual conference to a close. Social hour follows!

Zoom Access: Meeting ID: 984 7616 3848 Passcode: ORMATYC

<https://cocc.zoom.us/j/98476163848?pwd=NHEwWEVhVDQrT3INSg1QWktWbWnkQT09>