



UTeach in the Real World

Thursday, July 9
12:30 – 7 p.m.

Commons Learning Center

J.J. Pickle Research Campus, 10100 Burnet Road, Austin, TX 78758

12:30 – 1 p.m.

Registration/Check-In

Atrium

1:30 – 2:30 p.m.

Opening General Session

Lil' Tex Auditorium

Keynote Speaker: Michael Ralph

Education is experiencing an exciting renaissance. A growing community of educators across the nation is endeavoring to build more engaging and effective classrooms centered on fostering student success. UTeach alumni are joining this community in ever-increasing numbers, and you can affect this exciting movement in dramatic and sometimes unexpected ways. Michael's story of becoming a contributing education professional yields lessons that can help other alumni as they become dynamic collaborators themselves.

About Michael Ralph

Michael teaches freshman biology, AP biology, and genetics and biotechnology. He has been teaching for five years in Kansas public education as both a practicing classroom teacher and an education consultant. In addition to his teaching responsibilities, Michael is also a Science Olympiad coach, volunteer volleyball coach, and principal investigator for the Olathe East Biotechnology program. Beyond the classroom he also serves on his district's curriculum development committee, as his department's technology support contact, on the Kansas Association of Biology Teachers board as the treasurer, as a College Board AP Insight consultant, and as a master teacher for Innovative Technology in Science Inquiry through the Concord Consortium.

The core of Michael's teaching philosophy is a commitment to inquiry learning experiences for students. After becoming the first science graduate produced by the UKanTeach program at the University of Kansas, he cofounded Biology Rocks. He has authored two books, Biology Rocks! Ed. 1 & 2, that support teachers as they develop inquiry-based lessons that get students active and engaging with life science content. Biology Rocks has given presentations across the country at professional conferences including the National Science Teachers Association and National Association of Biology Teachers conferences. Biology Rocks! is offered in its current edition as a free download to any interested teacher to spread support for inquiry learning. Michael gave a PechaKucha-inspired UTeach Talk about developing and implementing Biology Rocks and the impact it has on student learning at the 2012 UTeach Annual Conference.

Michael holds a Masters in Chemical and Life Sciences with a concentration in life sciences from the University of Maryland. He is currently focused on mentorship of current UKanTeach students, development of effective methods for deploying technology to enhance classroom learning, and his research efforts into methanotrophic microbe ecology.

Discover some favorite tips or tricks for engaging students from fellow alumni. Learn about great classroom resources and visit our exhibitors while you have a snack break and mix and mingle with UTeach Nation.

Idea Swap Tables

Sneak Preview of the "Discovery Precalculus" MOOC

Jeremiah Lucas, OnRamps Precalculus Course Coordinator, The University of Texas at Austin

How to Use the AP Physics MOOC in Your Classroom

Mariam Manuel, Instructional Specialist, The Robert Shaw Center for STEAM, Katy, TX

Tips on Reaching and Teaching Special Populations

Jessica Menchaca, Science Teacher, Del Valle Independent School District, Del Valle, TX

Ideas for Connecting Math Class to Local Cultural Institutions

Lauren Siegel, Director, Math Happens, Austin, TX

Snack break sponsored by Tokyo Electron America



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Reconnect with your classmates and make new friends at the Welcome Reception. The event includes two free drink tickets and appetizers.

Reception sponsored by Three Rivers Foundation



UTeach in the Real World

Friday, July 10
8:00 a.m. – 4:30 p.m.

8 – 9 a.m.

Breakfast and Registration/Check-In

Atrium

9 – 10 a.m.

Breakout Sessions I

Inquiry in Science: What Does it Look Like? (Part I)

I.130 Longhorn

Inquiry in Science (Parts I and II) is a professional development that allows teachers to experience firsthand an inquiry-based approach in science. Once participants have completed the lab, they see the "cookbook" or traditional version of the lab so they can reflect upon the differences in student experience with the two types of methods. Participants can use what they learn about inquiry to transform other traditional labs into inquiry activities.

Presenter: Mariam Manuel, Instructional Specialist, The Robert Shaw Center for STEAM, Katy, TX

The Geometry of Iteration

I.140 Bevo

Participants will explore function iteration and apply the processes and properties to paper folding in order to create interesting geometric objects. This active learning session can be presented to students at either a middle school or high school level as part of an investigation in geometry.

Presenter: Dr. Mark Daniels, Clinical Professor of Mathematics, The University of Texas at Austin

Tool, Toys, and Techniques: Creativity in the Engineering Design Process

I.138 Stadium

Through reverse engineering, you can empower your students to study and change the products around them. This session gives you experience with this process, as you reverse engineer a low-cost product: toys!

Presenter: Pius Wong, Research Engineer, UTeach Engineering, The University of Texas at Austin

Inquiry in Science: What Does it Look Like? (Part II)**I.130 Longhorn**

Inquiry in Science (Parts I and II) is a professional development that allows teachers to experience firsthand an inquiry-based approach in science. Once participants have completed the lab, they see the "cookbook" or traditional version of the lab so they can reflect upon the differences in student experience with the two types of methods. Participants can use what they learn about inquiry to transform other traditional labs into inquiry activities.

Presenter: Mariam Manuel, Instructional Specialist, The Robert Shaw Center for STEAM, Katy, TX

Engaging Students in Math Through Problem-Based Inquiry**I.140 Bevo**

Learn and share ideas for helping students think and work mathematically through problems. See challenges for multiple and wide age ranges that you can use to engage students in the process of finding structure, describing relations and patterns, abstracting concepts, and critiquing ideas.

Presenter: John McMahon, Math Instructor, Alternative Learning Center Central, Fort Myers, FL

Grading for Learning: An Introduction to Standards-Based Grading**I.138 Stadium**

Are you tired of students "grade-grubbing"? Do you spend hours grading exams, but you (and your students) still aren't sure what they know? Come explore ways you can shift from a classroom based on grades to a classroom based on learning.

Presenters: Shana King and Allison Paris, Teachers, Crockett High School, Austin, TX

Lessons on Leadership

Many UTeach graduates are asked (or choose) to take on leadership roles early in their careers. These roles require particular knowledge and skills that graduates may not have learned in their UTeach programs. Two math teachers, who quickly became campus and district leaders, share their experience and insight on navigating the path to leadership positions

Presenters: Laura Carlin-Gonzalez, Director of College and Career Readiness at Pflugerville Independent School District, Pflugerville, TX; and Kevin Garcia, Coordinator of Mathematics, Southside Independent School District, San Antonio, TX

Data-Driven Intervention in the Science Classroom**I.130 Longhorn**

Data-driven intervention is an incredibly powerful tool for helping assess student performance in the classroom. Data can easily be collected and analyzed by students, which promotes self-efficacy and responsibility. This session will explore the possibilities of a datadriven classroom and help each attendee develop a plan to bring back to their school.

Presenter: Katherine Palmer, Science Teacher, U.S. Grant High School, Oklahoma City, OK

UTeach Mathematics in the Real World**I.140 Bevo**

This is an opportunity to share your best "UTeach-style" lessons in mathematics with other teachers. Inquiry, problem solving, engaged learning...oh my! Bring a lesson to share.

Presenter: Pamela Powell, UTeach Master Teacher, The University of Texas at Austin

A 5-E Approach to Flipping the Classroom**I.138 Stadium**

Flipping the classroom is one of newest trends in education that can also work seamlessly with the 5-E model. Learn about the facts and myths of a flipped classroom, and how you can easily incorporate it into your style of teaching.

Presenter: Lauren Cardenas, High School Math Teacher, San Felipe Del Rio CISD, Del Rio, TX

2:50 – 3:50 p.m.

Breakout Sessions IV

Bringing Science Content to Life with Student Created GIFs

I.130 Longhorn

GIFs are infinitely looped files that are easy to make, and they can be a great educational tool! Explore how to involve students in creating GIFs to address science content.

Presenter: Brianna Rapini, Science Coordinator, Klein Independent School District, Klein, TX

Preventing Inquiry's Escape in Higher-Level STEM Courses

I.140 Bevo

Some believe that, as students advance in their math careers, they “grow out” of inquiry. In this session, learn how inquiry still has a place in upper-level courses and acquire tips to keep inquiry a critical part of advanced classrooms.

Presenter: Mark Townsend, High School Math Teacher, NYOS Charter School, Austin, TX

Reflection Leads to Action

I.138 Stadium

Participants can use this time and space to reflect on what they have learned today and create a plan for how to put that learning into action.

Snack break sponsored by SOTI Inc

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4 – 4:30 p.m.

Closing General Session

Lil' Tex Auditorium

EXHIBITOR GUIDE

Accelerate Learning

Developed by Accelerate Learning and Rice University, STEMscopes is a digital science solution for pre-K through 12th grade students offering three core curriculum programs, STEMscopes State Edition, STEMscopes NGSS, and STEMscopes Early Explorer.

www.acceleratelearning.com

Del Valle Independent School District

Del Valle Independent School District covers roughly 175 square miles in the southeast sector of Travis County near Austin, Texas. The district's 15 campuses serve approximately 12,000 students.

www.dvisd.net

Engineer Your World

Engineer Your World is a project-based high school curriculum that engages learners in authentic engineering experiences and inspires them to embrace an engineer's habits of mind.

www.engineeryourworld.org

Girlstart

Girlstart's After School Program provides 4th-5th grade girls with a fun, free STEM enrichment program that builds confidence, encourages STEM learning excitement, and fosters discovery of greater career opportunities.

www.girlstart.org

Leander Independent School District

We are a fast growing school district north of Austin, Texas, with a diverse population of 36,500 students at 39 campuses.

www.leanderisd.org

Manor Independent School District

Manor Independent School District is a rapidly growing, diverse district that encompasses approximately 100 square miles and includes addresses in Austin, Manor, and Elgin, Texas. It serves over 8,600 students at two high schools, two middle schools, seven elementary schools, and one alternative academy.

www.manorisd.net

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Three Rivers Foundation

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