

2022

# TEA SUMMIT

Thirty-five STEM faculty from UC Irvine, San Jose State University, and Cal Poly Pomona will demonstrate how **mastery learning** & **specifications grading** boost students' **growth mindset** and enhance their learning experience in the Teaching Experiment Academy (TEA) summit.

[VISIT THE TEA SUMMIT WEBSITE](#)

## WHEN:

**APRIL 28 - 29, 2022**

**10AM - 2PM PT**

## WHERE:

**ONLINE**

REGISTRATION  
REQUIRED

## REGISTER:



SCAN OR CLICK  
TO REGISTER

## KEYNOTE SPEAKERS:



### RENÉE LINK

Professor of Teaching  
Department of Chemistry  
UC Irvine



### ROBERT TALBERT

Professor  
Department of Mathematics  
Grand Valley State University

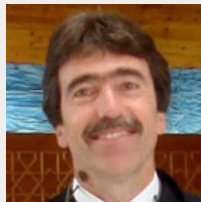
# ABOUT THE TEA SUMMIT

Higher education institutions have been searching for ways to improve STEM education. A collaborative team from UC Irvine, San Jose State University, and Cal Poly Pomona established a cohort-based faculty development program in Summer 2021, the [Teaching Experiment Academy](#) (TEA). The goal is to assist faculty in redesigning the STEM curriculum with the components of mastery learning structure and specifications grading system to enhance the student learning experience and increase their inner growth mindset.

35 faculty who redesigned their STEM courses after participating in the academy will share their journey from curriculum redesign to implementing the new grading system in teaching. Come and explore how these faculty teach with mastery specifications grading and the impact of student learning outcomes generated by this new pedagogy.

Many thanks to the [California Learning Lab](#) and UC Irvine's [Office of VP for Teaching and Learning](#) for sponsoring the TEA program. We look forward to seeing you at the TEA Summit online!

## MESSAGE FROM THE TEA PROJECT TEAM



*STEM education has been transformed by a combination of pedagogical innovations and emerging technologies. Educators are eager to explore ways to engage students, foster learning experiences, and improve academic outcomes. The TEA Summit cultivates a robust faculty learning community, embracing teaching experience exchange and peer-led discussion on today's STEM education matters. By participating in the TEA summit, we hope faculty will be motivated to rethink teaching and ways to support the student learning experience, especially for the underrepresented and minoritized groups.*

Sincerely,

**Michael Dennin**, Vice Provost for Teaching and Learning, UC Irvine

**Megan Linos**, Director of LX Design & Online Education, UC Irvine

**Victoria Bhavsar**, Director of the Center for the Advancement of Faculty Excellence, Cal Poly Pomona

**Nikos Mourtos**, Department Chair of Aerospace Engineering, College of Engineering, SJSU

**Laura Sullivan-Green**, Associate Professor, Civil & Environ Engineering, SJSU

**Eileen Chen**, Instructional Designer, College of Engineering, SJSU

# KEYNOTE SPEAKER

04/28/22 @ 10 AM



## RENÉE LINK, Ph.D.

Professor of Teaching, Department of Chemistry  
University of California, Irvine

Renée Link is a Professor of Teaching in the Department of Chemistry at the University of California, Irvine (UCI) who designs, manages and teaches the organic chemistry lab courses taken by over 1,000 UCI students each year. Although her training was in

organic chemistry methodology, she discovered that her true passion was in helping students learn organic chemistry. Her scholarly activity focuses on using active learning in large courses to create a more inclusive and equitable learning experience for students from all backgrounds. As a community college transfer student and first-generation college graduate, Professor Link serves as a mentor for UCI graduate and undergraduate students navigating the complex world of academia.

## KEYNOTE: FINDING SUSTAINABLE APPROACHES TO TEACHING WITH INTENTION

We often replicate our teaching approaches, assessments, and course policies based on what we experienced as students or based on a syllabus handed down from colleagues. In the process of developing your course, have you ever paused to ask yourself why? Why am I using this assessment approach? Why did I choose this course policy? How are these choices impacting students, especially students who are not exactly like me? Truly addressing these questions can be challenging work. At the same time, structuring courses in ways that support students should not require sacrificing ourselves in the process. The choices we make must be sustainable for us and for any other members of our teaching teams. In this keynote we will explore how to approach our teaching with intentionality while making choices that are practical for us, our teaching team, and our students.

# KEYNOTE SPEAKER

04/29/22 @ 10 AM



## ROBERT TALBERT, Ph.D.

Professor, Department of Mathematics  
Presidential Fellow for the Advancement of Learning  
Grand Valley State University

Robert Talbert is a Professor of Mathematics and Presidential Fellow for the Advancement of Learning at Grand Valley State University. He holds an undergraduate degree in Mathematics from Tennessee

Technological University and Master's and Ph.D. degrees in Mathematics from Vanderbilt University. He is the author of *Flipped Learning: A Guide for Higher Education Faculty* and co-author of the forthcoming book *Grading For Growth* with Prof. David Clark. Robert was a scholar-in-residence with Steelcase from 2017-2018, where he conducted research on active learning and active learning classrooms. In his current role in the GVSU president's office, Robert coordinates university-wide and cross-institutional initiatives to promote active learning and other research-based teaching practices, while continuing to teach 3-4 courses in the Mathematics Department each year. Robert writes about math, technology, productivity, and higher education at his website, [rtalbert.org](http://rtalbert.org). He lives in Allendale, Michigan with his wife, three teenage children, and four cats.

## KEYNOTE: THREE GRAND CHALLENGES FOR STEM EDUCATION

Higher education in general and undergraduate STEM education in particular were facing profound challenges to their relevance and long-term viability even before the Covid-19 pandemic.

Accelerating change in the world at large, including but not limited to the pandemic, has made it clear that what has "worked" in undergraduate education in the past is not necessarily what will serve learners best in the future. We must respond to these challenges appropriately, with a problem-solving mindset. In this talk, I will outline three "grand challenges" for undergraduate STEM education posed as opportunities to change the way we teach our subjects for the better, and thereby better serve learners and situate both them and us for the years ahead.

## 10:00AM - 10:45AM | KEYNOTE: FINDING SUSTAINABLE APPROACHES TO TEACHING WITH INTENTION

**Presenter: Renée Link, Professor of Teaching, Department of Chemistry, UC Irvine**

We will explore how to approach STEM teaching with intentionality while making practical choices for us, our teaching team, and our students.

## 11:00AM - 11:45AM | FACULTY INNOVATION SHOWCASE

Faculty from Chemistry, Computer science, Physics and Engineering will demonstrate how they implement mastery learning and specifications grading in teaching to improve the STEM learning experience.

### Group 1

**Alfredo Freitas**, Chemistry

**Irene Gassko**, Computer Science

**Rachel Martin**, Chemistry

### Group 2

**David Kirkby**, Physics

**Michael Ratz**, Physics

**Laura Tucker**, Physics

### Group 3

**Gerasimos Kontos**, Engineering

**Kaikai Liu**, Engineering

**Yazdan Pedram Razi**, Engineering

## 12:00PM - 12:45PM | ROUND TABLE

Faculty-led peer discussion on supporting students and enhancing STEM education. Share your vision and discuss the possibilities of future STEM learning environments with your peers.

## 1:00PM - 1:45PM | FACULTY INNOVATION SHOWCASE

Faculty from Biology, Mathematics, Meteorology, Physics, Statistics, and Engineering will demonstrate how they implement mastery learning and specifications grading in teaching to improve the STEM learning experience.

### Group 4

**Veronica Berrocal**, Statistics

**Christopher Davis**, Mathematics

**Berit Givens**, Mathematics

### Group 5

**Greg Placencia**, Engineering

**Mahima A. Suresh**, Engineering

### Group 6

**Jodie Clark**, Meteorology

**Michelle Digman**, Engineering

**Franklin Dollar**, Physics

## 1:45PM - 2:00PM | CLOSING REMARKS

Alison Baski, the Dean of Science and Interim Dean of Engineering at Cal Poly Pomona, will address today's STEM education at the end of the first day of the TEA summit.



**10:00AM - 10:45AM | KEYNOTE: 3 GRAND CHALLENGES FOR STEM EDUCATION**

**Presenter: Robert Talbert, Professor, Department of Mathematics, Grand Valley State Univ.**

Professor Talbert will discuss the three "grand challenges" for undergraduate STEM education posed as opportunities to change the way subjects are taught to better serve learners and situate them for the years ahead.

**11:00AM - 11:45AM | FACULTY INNOVATION SHOWCASE**

Faculty from Biology, Chemistry, and Engineering will demonstrate how they implement mastery learning and specifications grading in teaching to improve the STEM learning experience.

**Group 7**

**Aimee Edinger**, Biology  
**Celia Faiola**, Biology  
**Igor Tyukhov**, Engineering

**Group 8**

**Brian Andrade**, Engineering  
**Tony Pan**, Engineering  
**Shreeyukta Singh**, Chemistry

**Group 9**

**Patrick Hong**, Engineering  
**David Wagner**, Engineering  
**Jeyoung Woo**, Engineering

**12:00PM - 12:45PM | ROUND TABLE**

Faculty-led peer discussion on supporting students and enhancing STEM education. Share your vision and discuss the possibilities of future STEM learning environments with your peers.

**1:00PM - 1:45PM | FACULTY INNOVATION SHOWCASE**

Faculty from Computer Science, Mathematics, and Engineering will demonstrate how they implement mastery learning and specifications grading in teaching to improve the STEM learning experience.

**Group 10**

**Carlos Rojas**, Engineering  
**Navrati Saxena**, Computer Science  
**Mike Wu**, Computer Science

**Group 11**

**Burford Furman**, Engineering  
**Karina Novoa**, Mathematics  
**Mojtaba Sharifi**, Engineering

**Group 12**

**Natascha Buswell**, Engineering  
**David Copp**, Engineering  
**Jon-Erik Tateri**, Engineering

**1:45PM - 2:00PM | PEER REFLECTIVE DISCUSSION**

Join a reflective discussion and share new learnings and teaching ideas to recap the two-day summit experience.

# SHOWCASE PRESENTERS

## ENGINEERING



**Brian Andrade**  
Adjunct Professor  
San Jose State University  
4/29 @ 11:00AM



**Natascha Buswell**  
Assistant Professor  
UC Irvine  
4/29 @ 1:00PM



**David Copp**  
Assistant Professor  
UC Irvine  
4/29 @ 1:00PM



**Michelle Digman**  
Associate Professor  
UC Irvine  
4/28 @ 1:00PM



**Burford Furman**  
Professor  
San Jose State University  
4/29 @ 1:00PM



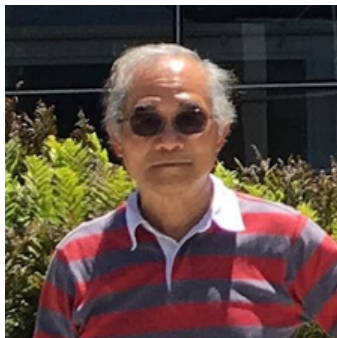
**Patrick Hong**  
Lecturer  
UC Irvine  
4/29 @ 11:00AM



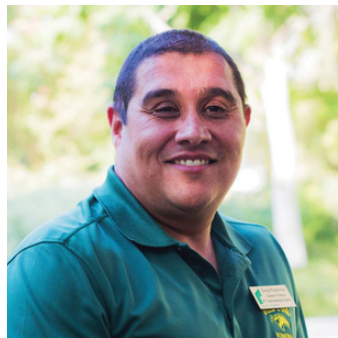
**Gerasimos Kontos**  
Fulbright Visiting Professor  
San Jose State University  
4/28 @ 11:00AM



**Kaikai Liu**  
Associate Professor  
San Jose State University  
4/28 @ 11:00AM



**Tony Pan**  
Lecturer  
San Jose State University  
4/29 @ 11:00AM



**Greg Placencia**  
Assistant Professor  
Cal Poly Pomona  
4/28 @ 1:00PM



**Yazdan Pedram Razi**  
Adjunct Professor  
San Jose State University  
4/28 @ 11:00AM



**Carlos Rojas**  
Assistant Professor  
San Jose State University  
4/29 @ 1:00PM

# ENGINEERING



**Mojtaba Sharifi**  
Assistant Professor  
San Jose State University  
4/29 @ 1:00PM



**Mahima Agumbe Suresh**  
Assistant Professor  
San Jose State University  
4/28 @ 1:00PM



**Jon-Erik Tateri**  
Lecturer  
UC Irvine  
4/29 @ 1:00PM



**Igor Tyukhov**  
Adjunct Professor  
San Jose State University  
4/29 @ 11:00AM



**David Wagner**  
Assistant Professor  
San Jose State University  
4/29 @ 11:00AM



**Jeyoung Woo**  
Assistant Professor  
Cal Poly Pomona  
4/29 @ 11:00AM

# COMPUTER SCIENCE



**Irene Gassko**  
Lecturer  
UC Irvine  
4/28 @ 11:00AM



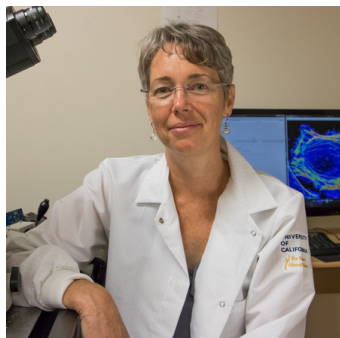
**Navrati Saxena**  
Assistant Professor  
San Jose State University  
4/29 @ 1:00PM



**Mike (Ching-Seh) Wu**  
Assistant Professor  
San Jose State University  
4/29 @ 1:00PM



## BIOLOGY



**Aimee Edinger**

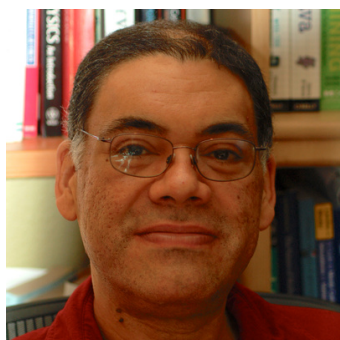
Professor  
UC Irvine  
4/29 @ 11:00AM



**Celia Faiola**

Assistant Professor  
UC Irvine  
4/29 @ 11:00AM

## CHEMISTRY



**Alfredo Freitas**

Lecturer  
UC Irvine  
4/28 @ 11:00AM



**Jessica Kelz**

Grad Student Researcher  
UC Irvine  
4/28 @ 11:00AM



**Rachel Martin**

Professor  
UC Irvine  
4/28 @ 11:00AM



**Shreeyukta Singh**

Lecturer  
San Jose State University  
4/29 @ 11:00AM

## MATHEMATICS & STATISTICS



**Veronica Berrocal**

Associate Professor  
UC Irvine  
4/28 @ 1:00PM



**Christopher Davis**

Associate Professor  
UC Irvine  
4/28 @ 1:00PM



**Berit Givens**

Department Chair  
Cal Poly Pomona  
4/28 @ 1:00PM



**Karina Novoa**

Lecturer  
Cal Poly Pomona  
4/29 @ 1:00PM

# PHYSICS



**Franklin Dollar**  
Associate Professor  
UC Irvine  
4/28 @ 1:00PM



**David Kirkby**  
Professor  
UC Irvine  
4/28 @ 11:00AM



**Michael Ratz**  
Professor  
UC Irvine  
4/28 @ 11:00AM



**Laura Tucker**  
Assistant Professor  
UC Irvine  
4/28 @ 11:00AM

# METEOROLOGY & CLIMATE SCIENCE



**Jodie Clark**  
Lecturer  
San Jose State University  
4/28 @ 1:00PM







This program is made possible by the Teaching Experiment Academy - A collaborative effort of UC Irvine, San Jose State University, and Cal Poly Pomona.

For more information, visit our website at <https://tea.dtei.uci.edu/>



*Special thanks to the California Learning Lab project and UC Irvine's Office of Vice Provost for Teaching and Learning for sponsoring this program.*

