



CALIFORNIA STATE UNIVERSITY
FULLERTON[™]

Titan Mathematics Apprentices Program

Peer Instruction and Tutoring for Mathematics and Statistics

January 8th, 2021

Cherie Ichinose
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Unexpected Result

(CSU) Course Redesign with Technology

Redesign College Algebra

2013-2014



Unexpected Result

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Redesign College Algebra

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Unexpected Result

(CSU) Course Redesign with Technology

Redesign College Algebra

2013-2014

Mr. Eaves



Mrs. Garcia



Ms. Borg



Unexpected R

Titan Mathematics Apprentices Program



Unexpected Result

Titan Mathematics Apprentice Program

Primary Role: Support an Active Learning Classroom

Apprentices are not a grader or an SI Leader

Apprentices are more like “Student Teacher”

Unexpected Result

Titan Mathematics Apprentice Program

Primary Role: Support an Active Learning Classroom

Pre-Covid

Send Announcements and Welcome Emails

Walk around the class and engage with groups

Lead Warm-up or Lessons

Facilitate Study Groups outside of class

Create Scavenger Hunts and Interactive Lessons

Unexpected Result

Titan Mathematics Apprentice Program

Primary Role: Support an Active Learning Classroom

Now

Send Announcements and Welcome Emails

Login to zoom and engage with groups

Lead Warm-up or Lessons

Facilitate Study Groups outside of class

Create Escape Rooms and Interactive Lessons

Unexpected Result

Titan Mathematics Apprentice Program

Training

Pre-Covid

Summer in-person workshop (Often time with credential students)

Group Work

Mathematics Vocabulary

Monthly Webinars

Unexpected Result

Titan Mathematics Apprentice Program

Training

Now

Summer Virtual Workshop

The TMMT Virtual Summit - **“Be Present – Not Perfect”** focused on online pedagogy to support an active learning environment.

Apprentices were trained to create and facilitate:

- LMS Communication Tools (Messaging in Canvas and Quickmail in Titanium)
- Threaded Discussion boards (Canvas and Titanium)
- Create and Distribute Welcome and Weekly Reminder videos
- Voicethread (Canvas and Titanium)
- Train with Zoom breakout rooms

Unexpected Result

Titan Mathematics Apprenticeship Program

Training

Now

Webinar Series *Strides on the Path to Math Equity* (<https://equitablemath.org/>)

Stride 1: Dismantling Racism in Mathematics Instruction

- January 21st - How Did I Learn Math, How Do I Teach Math?
- February 25th - How Do I Track What Students Know?
- March 18th - How Do I Engage Students In Learning?

Unexpected Result

Titan Mathematics Apprentice Program

Recruitment

My Past Students

TA (Grad Students)

Faculty Recommendations

Application and Interview Process

GPA Requirement

Panel Interview

Unexpected Result

Titan Mathematics Apprentice Program

Funding

Course Redesign with Technology

The Noyce Scholarship Program: ***Transitioning Math Majors into Teaching (TMMT)*** is funded by the National Science Foundation

Mathematics and Science Teacher Initiative (MSTI)

Private Donors: Ron Godshalk, Cher Carrera

Unexpected Result

Titan Mathematics Apprentice Program

Faculty - Testimony

I wanted to take a second to let you know that J. Perez is absolutely amazing. She has gone above and beyond during these last 12 weeks-I am so thankful for her assistance with everything. She has been such a huge help during our Zoom meetings and announcements all while staying professional and courteous with me and our students. . . . I know how tempting it can be to just explain everything yourself but she let the students be the star. She is going to become a phenomenal educator one day.

Unexpected Result

Titan Mathematics Apprenticeship Program

Faculty - Testimony

Thank you so much for allowing me to work with our amazing future math teachers. Not only did they attend my synchronous class twice a week, we met weekly for an hour to discuss the upcoming week, supported me with grading assignments, quizzes, and several exam problems -- learning about applying rubrics fairly to written student work as well as student Flipgrid videos.

They often stepped into the teacher role during class, asking great questions, modeling to students what mathematical reasoning looks like. They learned what collaboration among teachers can look like by forming our Professional Learning Community together. The students were all so expressive in their thanks this past week, acknowledging how great it was to have a fellow CSUF Titan in class. I am very grateful for their assistance, feedback, input, and attitudes, especially during our pandemic teaching.

Unexpected Result

Titan Mathematics Apprentice Program

Student - Testimony

I became an apprentice to gain more experience in teaching, but I also ended up gaining so much wisdom and depth about the beauty of teaching. It is so encouraging to be a part of this community of future teachers with the same heart and mind for students.

As my first year as an apprentice, the experience has been amazing, and I have enjoyed every second of it! I have gained great knowledge of how to better communicate with students and connect the class together. Also, from the meetings held, I have learned several ways of being an efficient teacher from discussions with my peers. The apprentice program is such a wonderful program that helps and provides all the tools to their students to prepare them to become incredible educators.

Unexpected Result

Titan Mathematics Apprenticeship Program

Student - Testimony

My experience as an apprentice has been more rewarding than I could have ever imagined. I've been able to work alongside a master teacher and experience what a career in teaching mathematics entails. Through this opportunity, I am able to not only encounter the common difficulties of pursuing my ideal career, but I also experience the various benefits and comfort I feel in a classroom atmosphere. In our monthly seminars, I've learned important lessons about just, equitable, and inclusive education! I've also been able to network and form strong connections with mathematics faculty and future math teachers like myself. I'm eager to personally grow and achieve my future endeavors with my experience as an apprentice

Unexpected Result

Titan Mathematics Apprenticeship Program

Employment

Every one of our apprentices have received employment at/or before the completion of their program.

Credential or Masters Program



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