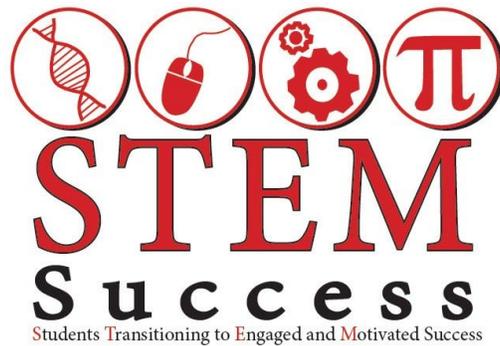


Summer 2020 STEM Success Newsletter

Students Transitioning to Engaged and Motivated Success



STEM Success Logo



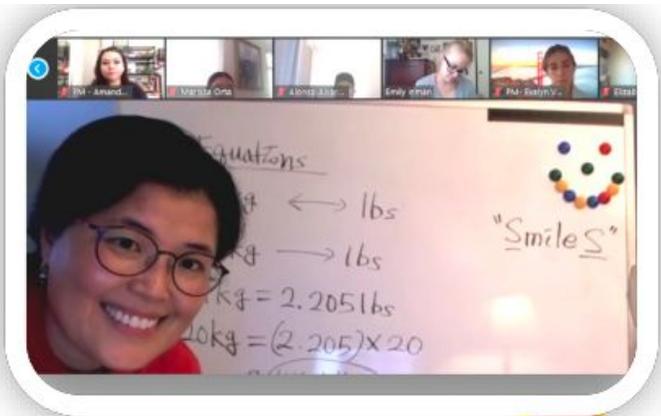
Screenshot from the Summer STEM Discovery Academy participants on Zoom.

Summer Discovery Academy

Summer 2020 was a memorable and unique term for our STEM Discovery Academy (SDA). Due to COVID-19, SDA was offered exclusively online. We had a total of 29 student participants, 7 dedicated peer mentors, and several faculty and staff who worked hard over the two-week period. Our academy was hosted via Zoom where students could meet faculty in various STEM disciplines, connect with other STEM majors, and develop friendships that will last their whole college career. Our students were able to participate in virtual and hands on lab activities, group discussions, and social activities. We did all of this while cultivating a safe space for personal sharing.



Picture of peer mentor, and 3 students from SDA.



Picture of Dr. An explaining something with her whiteboard.



Student Quote - "As a Peer Mentor, I enjoyed connecting with the incoming students, and I was impressed by their curiosity about various topics."

Picture of Peer Mentor Bella.



Student Quote - "Doing a genetics lab that cost \$160 in the real world for free will always be an elite experience." -Vignesh Lal, Incoming Freshman.

Picture of Vignesh Lal

SDA Continued

SDA provided a mix of hands-on activities and virtual activities, some new and some adapted. For the genetics lab activity, students were sent a tube with saline solution to send back a spit sample. Dr. Jim Youngblom processed the sample and analyzed for the “athletic gene”. The students got to see the results of their own DNA and discuss their findings. In “How to talk to a professor”, groups were put into breakout rooms with professors and practiced role playing skits of real college scenarios. Students also completed a virtual “Daphnia on Drugs” lab, and measured their own hair at home with the laser activity.



Laser lab set up with binder clips and index cards.

Transfer Showcase

As part of our new student orientation, WOW 2 STEM participates in a tabling event and our transfer specialist, Elizabeth Monroe, provides a presentation on upper division GE requirements for STEM majors. WOW 2 STEM also provides an additional orientation to STEM Success to familiarize transfer students with the variety of ways we can assist them as they continue their education here at Stan State. This includes a presentation given by our peer mentors detailing their positions and how they can help with the transfer process, as well as a transfer student panel. On campus, this would also include a tour of our science facilities.

RISE Research

Research and Immersion for STEM Excellence (RISE) research associates are able to participate in research alongside faculty, attend a variety of National conferences and receive one-on-one faculty mentoring. Due to COVID-19 our faculty have found creative ways to engage with their research teams remotely.

Dr. Sankey's Geology Lab

Grace Parsons worked with Dr. Julia Sankey to conduct research into the effectiveness of using informal education to teach K-12 students about climate change. The data was collected during Stan

State's annual Science Day which is an event where our campus' Science Departments invite the community into their labs to learn more about the various fields in STEM. Parsons and Dr. Sankey designed their room with climate change and children in mind. They used entrance and exit surveys to gather data on the effectiveness of their exhibit and found improvements in attitudes towards science and knowledge about climate change. Parsons submitted her abstract to the Geological Society of America. If it is accepted, she will be presenting at this year's annual GSA conference.



Picture of Grace Parsons. She is a Chemistry major.

Dr. Stessman's Chemistry Lab

Moises Nuñez is a RISE student working in Dr. Nhu Y Stessman's research group synthesizing antibiotic Anomian B which is used in cancer research. This antibiotic has 3 different fragments and the team was able to complete 2 out of 3 fragments before COVID-19 shut down the campus. Working remotely, Moises said he was "able to find different articles online, that could potentially be used to synthesize the last fragment, hordnine. It was a struggle to get the group on the same page," The team utilized google docs to share their articles with each other and held virtual research meetings. Moises said "Although it was a challenge, we were able to manage and adjust ... Now when we do get an opportunity to get back in the lab room, we will get straight to doing synthesis of our 3rd fragment." Working remotely on article searches will give them "a better understanding of our lab workups when the opportunity arises."



Picture of Moises Nuñez. He is a Chemistry major.

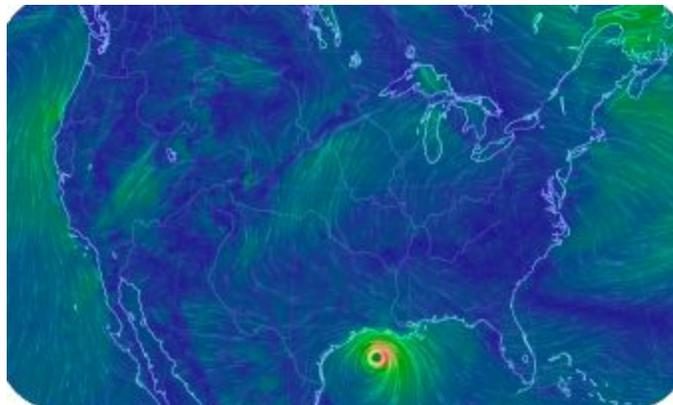
WOW2STEM

Warriors on the Way 2 STEM (WOW 2 STEM) has made the transition to being exclusively online! It is still possible to be connected to campus in our virtual world. Transfer students can set up

appointments to meet with our peer mentors or our transfer specialist, Elizabeth Monroe, over Zoom. We can assist you with many of your educational, social, or research based needs.

Air Quality Project

In collaboration with Dr. Horacio Ferriz and Dr, JungHa An, we are working with colleagues at Columbia College, Merced College, and Modesto Junior College to look at air quality trends in the central valley. Dr. Ferriz and Leah Young-Chung instructed the SDA peer mentors and participants to collect wind and air quality data during the month of July. Teams from the 3 community colleges will be looking at this data and their own data to see if there are any correlations and trends.



A screenshot from earth.nullschool.net showing wind patterns across the USA.

STEM Success' response to COVID-19:

- Virtual Commons Connection is available for College of Science STEM students to connect with peers and Peer Mentors.
- RISE research will be conducted online for students. For additional information students can contact their appropriate faculty mentor.
- Our WOW2STEM Advisor and Peer Mentors are available for Zoom advising sessions. Contact them at emonroe@csustan.edu

Contact us!

Visit our webpage: www.csustan.edu/stem-success

Or email us: stemsuccess@csustan.edu

Follow us on Instagram: @stemsucces