Sacramento City College MESA

Annual newsletter 2020-2021 edition Distributed May 13, 2021

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Math · Engineering · Science **Achievement**

About MESA

MESA (Mathematics, Engineering, Science Achievement) is a statewide program for students historically underrepresented in STEM (science, technology, engineering, and mathematics) industries to successfully earn degrees and pursue STEM careers. The SCC MESA program serves about 140 students each semester, providing services that include a study center, tutoring, academic excellence workshops, counseling, transfer preparation, and connection to industry and STEM careers. MESA was born out of the civil rights movement in 1970 through a partnership between UC Berkeley and Oakland Technical High School to address racial disparities in STEM. Since then, MESA has expanded across California in K-12 education, community colleges, and universities. Los Rios piloted the first community college program in 1989, and we still offer MESA at American River College, Cosumnes River College, and Sacramento City College, providing STEM students with tools and guidance to successfully transfer to a university and earn a bachelor's degree.



Meet our Team!

Congratulations 2021 Transfer Students!

Check out our Los Rios Transfer Video: bit.ly/lrccdmesatransfer2021

Spring 2021

Nnaemeka Onyeokoro - CSU Sacramento - Electrical **Engineering & Electronics**

Fall 2021

Lawrence Anumene - Stanford University - Computer Science

Kaylyn Bellerose - UC Davis - Chemistry

Estefany Berrios Lizama - UC Berkeley - Economics Zhaoyi Chen - UC Berkeley - Mechanical Engineering Terry Clay - University of Nevada, Las Vegas -

Mechanical Engineering

Liliana Figueroa - UC Davis - Aerospace Science & Engineering

Lazer Introlegator - UC Davis - Neurobiology, Physiology,

Erik Jackson – UC Berkeley - Chemistry

Bianca Jussen - UC San Diego - Ecology, Behavior, and

Victoria Manasra - CSU Sacramento - Biology Griselda Martinez - UC Davis - Biological Sciences Ricardo Martinez, Jr. - UC Riverside - Chemical Engineering

Shirley Nguyen - UC Los Angeles - Data Theory Russell Reich - UC Davis - Computer Science Hana Ruiz - UC Merced - Cognitive Science Robanjeet Singh - UC Davis - Animal Biology Maisara Sukar - UC Los Angeles - Psychology Kai Lun (Helen) Tan - UC Berkeley - Statistics Ashley Vang - UC San Diego - Human Biology

Tracy Yu - UC Davis - Statistics

Weihao Zhu - UC Berkeley - Civil Engineering

MESA Program Assistants



Aliyah Nathan

Hornbuckle



Breanna James



Counselor



Maristella Bacod, Dr. Devoun Stewart **Faculty Sponsor**



Dr. Lorena Jauregui, Program Coordinator

Los Rios MESA Scholarship 2021 Sac City MESA Student Recipients

Congratulations to this year's Los Rios MESA Scholarship recipients! Below are the awardees from SCC:

Zhaoyi Chen

Transferring to UC Berkeley - Mechanical Engineering

Liliana Figueroa

Transferring to UC Davis - Aerospace Science & Engineering Lazer Introlegator

Transferring to UC Davis - Neurobiology, Physiology, & Behavior Kai Lun (Helen) Tan

Transferring to UC Berkeley - Statistics

Weihao Zhu

Transferring to UC Berkeley - Civil Engineering

Mansoor Ali

Continuing Student - Computer Science

Christina Robleto

Continuing Student - Computer Science

Ryan Valtierra

Continuing Student - Electrical Engineering

MESA Student Clubs



Multicultural Engineering Coalition

Contact:

sites.google.com/view/multicultural-engineers/mec-home

Includes the following professional chapters:

SHPE: Society of Hispanic Professional Engineers NSBE: National Society of Black Engineers SWE: Society of Women Engineers

Club Co-Advisors: Eric Wyles & Lorena Jauregui

Fall 2020 Club Leadership:

Breanna James, MEC Interim President/NSBE President Dylan Beck, MEC Secretary Jason Park, MEC Treasurer Angel Vasquez, SHPE President Isabella Campos, SWE President

Spring 2021 Club Leadership:

Breanna James, MEC President Jason Park, MEC Treasurer Janeth Salcedo, SHPE President Isabella Campos, SWE President Ivan Pacheco, CAEB Representative

This club serves students interested in engineering and computer science careers, and was founded in Fall of 2019 as a collaboration between the professional chapters of SHPE (Society of Hispanic Professional Engineers), NSBE (National Society of Black Engineers), and SWE (Society of Women Engineers). Virtual activities this year included weekly officer meetings, monthly club meetings, industry professional speakers, and alumni student panels. Students also participated in programs such as NASA internships and SacHacks computer science hackathons.

Diversity in Medicine Club

Contact: scc.diversity.in.medicine@gmail.com

Includes the professional chapter of

AMSA: American Medical Student Association

Club Co-Advisors: Semaj Hornbuckle & Lorena Jauregui

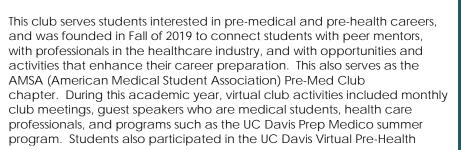
Fall 2020 Club Leadership:

President: Evelyn Rosas Lopez Vice President: Johnathan Santana

Treasurer: Maria Morelos

Spring 2021 Club Leadership:

President: Robanjeet Singh Vice President: Andrew Hunsaker



A Year in Review

[All virtual!]

August 18, 2020 MESA Statewide Idea Accelerator Presentations - Part 1

The MESA Idea Accelerator project is a competitive 8-week summer program hosted by the MESA Statewide office. It allows community college students to engage in project development focusing on solutions to real-life societal problems. This inspires MESA students to be visionary and humancentered entrepreneurs. This presentation session was the culminating event for students to showcase their work.

August 20, 2020 **Equity training for Instructional Assistants and Tutors**

MESA staff collaborated with other similar departments at our college to engage in an equity training tailored to Instructional Assistants and Tutors. It was hosted by the college Equity Coordinators, Dawna DeMartini and Dr. Devoun Stewart.

August 20, 2020 MESA Statewide Idea Accelerator **Presentations - Part 2**

The MESA Idea Accelerator project is a competitive 8-week summer program hosted by the MESA Statewide office. It allows community college students to engage in project development focusing on solutions to real-life societal problems. This inspires MESA students to be visionary and humancentered entrepreneurs. This presentation session was the culminating event for students to showcase their work.

August 20, 2020 MESA staff retreat and Dean's office meet & greet

Our team prepared for the semester and also got "virtually" visit with our division Dean, Angelena Lambert, and her team.

Transfer Spotlight

Erik Jackson Chemistry Major UC Berkeley Transferring Fall 2021



I entered Sacramento City College as a non-traditional student. I was raised by a single mother and grew up in an underdeveloped, crime-infest community in South Sacramento. When I dropped out of high school, I went straight to work. I worked in a warehouse, as an assembly worker for a window coverings company, retail, and as a lead technician for a data storage company. After being harassed constantly by a bad work supervisor, I finally felt pushed to make a meaningful career change and pursue college. 13 years out of high school, I received my GED. And I still lacked rudimentary math and writing skills. As a first-generation college student, I anticipated an unfamiliar system of higher education, so I joined support programs including MESA, EOPS, and RISE, which gave me resources like tutoring, counseling, textbook assistance, and a sense of community.

Academically, I struggled a lot with math, but I received excellent instruction and mentorship from Prof./Dean Angelena Lambert, Prof. Stephen Gonzales, Prof. Matthew Schutte, Prof. Alex May, Prof. Jonathan Segal, Prof. Halsey Boyd, and Prof. Tsz Yan Paine Wu. In two years, I went from Math 100 (Algebra 1) to Math 401 (Calculus 2). My Math 120 (Algebra 2) Prof. Gonzales also encouraged me to become a tutor. Tutoring has changed my life. I have helped others achieve their academic goals and I've become a role model around campus. Since I began at the foundational level courses, I am able to empathize with students and guide them to success.

The most important experience that I've had is exploring my interests and my professional identity -- I found myself while at the community college. I started as a Mechanical Engineering major, but after taking Organic Chemistry and conducting research with Dr. Shawn Reese at CRC, I changed my major to Chemistry. I realized that I am most passionate about Organic Chemistry. Dr. Reese is the reason I've solidified my career plan to one day earn a Ph.D. in Synthetic Organic Chemistry, to conduct research and to teach. I also conducted Brown Carbon research under the guidance of Dr. Devoun Stewart. Now I have been accepted to UC Berkeley to transfer in Fall of 2021. As I continue my career, I also plan to continue mentoring students and my peers. I want to help other students cultivate their interests in STEM, just as the community college has had an impact on me.

A Year in Review cont.

August 21, 2020 MESA Student Fall Kick-Off

Our MESA team hosted a virtual social event for new and returning MESA students to get to know one another before the start of the semester. It's a positive way to reenergize while the semester begins.

September 30, 2020 MESA Activity: Pre-Med & Engineering path panel

Semaj Hornbuckle, MESA Program Assistant, hosted a panel discussion that included himself as a premedical student who was in the process of applying to medical school, and SCC MESA Alumnus Breece Phipps who transferred to University of Southern California as an aerospace engineering major.

October 17, 2020

UC Davis Pre-Health Conference
Students from MESA and the
Diversity in Medicine AMSA Club
participated in this annual
conference that helps students
prepare for careers in health care
professions. This year it was a virtual
conference, but still valuable with
lots of medical professionals and
peers working toward similar career
paths.

October 23, 2020 MESA Activity: De-Stressing Social Nathan Hines, MESA Program Assistant hosted a de-stressing

Assistant, horsted a de-stressing social for MESA scholars. Students, MESA staff members, and our MESA Counselor, Maristella Bacod, enjoyed the event

November 30, 2020 MESA Activity: Game Night

Aliyah Penn, MESA Program Assistant, hosted a game night for MESA scholars to have some down time before preparing for finals week and wrapping up the semester.

January 12, 2021 MESA Team Huddle

The MESA staff team reconnected after the holidays to plan the semester. It was a great opportunity for us to touch base and develop a solid curriculum for MESA Scholars.

Activity Highlights



Shirley Nguyen
Data Theory Major
Transferring to UCLA
NASA L'SPACE Proposal Writing
and Evaluation Experience

What does it take to work with NASA as an entrepreneur? During the Fall of 2020, I participated in the NASA L'SPACE Proposal Writing and Evaluation Experience Academy, a 12-week program where students and NASA professionals across the nation form remote teams and train in writing and reviewing technology proposals. As the principal investigator and first innovator, I facilitated the collaboration of our multidisciplinary team during the development of our proposal for the 'lunar closed-loop chemical power generator'. The proposal was selected as a finalist after review from fellow program participants and NASA engineers and scientists. Witnessing a wild idea grow from its inception in my kitchen into a project that involves students, professionals, and academic researchers demonstrated the nature of entrepreneurship. No certifications, publications, or specific background are necessary in the making of an entrepreneur. The experience highlighted that leadership in the form of innovation, a commitment to the idea, and the willingness to learn along the way are the most significant qualities for pursuing a career in new technology. With the program being one of my first professional experiences, my key career takeaway is that the best way to overcome imposter syndrome is to start. The pieces will naturally fall into place.



Ricardo Martinez, Jr. Chemical Engineering Major Transferring to UC Riverside NASA L'SPACE Academy

I participated in NASA L'Space Academy hosted by Arizona State University in the summer of 2020. The first week of participating in the program was a little challenging because it took place online due to the pandemic. One of the hosts from this program told us that they would like for us to form a group to create a project together. The purpose of forming a group was to come up with a project that NASA would be interested in. It was like being a part of a competition, but with research experience. While forming a group, I met safely with other students who live in Northern California and we worked on our idea during the summer. We came up with an idea to develop a multi-purpose radiation shielding molecule that detects charged particle radiation. Once we finished our project, we presented our project virtually to the host of the program and to other groups. The good news is that we made it to third place in the competition. Winning the competition was not really important to me; learning how to write a research paper and presenting the findings to others was a big accomplishment for me. Being involved in these research programs gave me an important educational experience in my field of Engineering.

A Year in Review cont.

January 15, 2021 MESA Student Spring Kick-Off Social

This was a fun virtual session in which each MESA Program Assistant led an icebreaker or team building activity. It was successful and students were excited to reconnect, even virtually, during the continued remote learning environment of the new semester.

February 25, 2021
MESA Social between SCC and
Woodland Community College
Woodland Community College
MESA invited us to collaborate
and have a social where we
played "Millennial Loteria". It was
a lot of fun and students won
prizes!

March 12, 2021 MESA Statewide Cisco Mentorship Program Closing Ceremony We had SCC MESA Scholars

We had SCC MESA Scholars participate in this MESA statewide mentorship program. They were paired with industry professionals from Cisco, and this closing event had a keynote address from their company.

March 19, 2021 MESA Statewide Western Digital Mentorship Program Closing Ceremony

We had SCC MESA Scholars participate in this MESA statewide mentorship program. They were paired with industry professionals from Western Digital, and this closing event had a keynote address from their company.

April 17, 2021 MESA Community College Transfer Summit

This was a first ever opportunity for MESA students who will be transferring this fall to be able to meet with MESA alumni who transferred to popular universities. Students participated in questions and answer sessions in a virtual setting, learned about the transfer experience, and received clarification on how to decide their transfer plans.

Activity Highlights

Estefany Berrios Economics Major Transferring to UC Berkeley MESA Statewide Mentorship Program



I participated in the MESA Statewide Mentorship Program for community college students. The program pairs students with mentors from different technology companies, and I participated in the Cisco mentorship program. My mentorship experience with Cisco allowed me to be introduced to the finance and business analytics side of the tech industry. My mentor was Liz Torrence, Customer Success Manager at Cisco. She connected me with the Director of Financial Planning & Analysis at Cisco where I learned more about the finance and sales side of Cisco. This was more relevant to my career goals since I am studying applied mathematics with a focus on economics. In addition, I was offered a referral from my mentor in any Cisco internship that I plan to pursue. I really enjoyed being mentored by Liz and making connections with finance professionals in the tech industry because it allows me to be exposed to finance within the STEM field, especially as I continue my education when I transfer to UC Berkeley this fall.



Weihao Zhu Civil Engineering Major "SaSa" Student Airborne Science Activation NASA Program

I participated in a group of students, educators, and professionals developing a project to be presented for inclusion in the CubeSat Launch Initiative, which provides opportunities for small satellite payloads built by universities, high schools and non-profit organizations to fly on upcoming launches. The current design for our CubeSat aims to test both existing and novel devices, materials, and applications for use in future space-related projects, as well as gather data to better understand our planet. Everyone involved in this project is highly motivated. Right now we are researching the idea and concept of our CubeSat and we continue looking into funding to support our work. We plan to see it come to fruition by the end of the year. This is an amazing program for me as a STEM student. It provides an opportunity for me to get familiar with the work related to STEM and allows me to explore my potential. It shows me that anyone willing to put in the time and effort can achieve their full potential, including in STEM careers. Through this project I realized the importance of teamwork and learned valuable skills related to STEM careers.

~ THANK YOU ~

The work carried out this year was made possible thanks to our statewide leadership and community donors:

SCC Office of Philanthropy
CA Community College Chancellor's Office MESA Grant
UC Office of the President MESA Statewide Team

2020-2021 The year of remote learning!

