



Spring 2024

Silicon Valley Women in Engineering 2024

by Angelica Eulloqui, MESA/STEM Counselor

The 2024 Silicon Valley Women in Engineering (SWiE) conference was hosted on Saturday, March 16th at San Jose State University. Four females pursuing engineering and computer science majors from Allan Hancock College had the opportunity to attend the inspiring conference. The theme for this year's conference was "Responsible Engineering for a Better Future."



The one-day conference offered various career development workshops, talks by female leaders in the world of tech and engineering. AHC engineering students networked with peers, university faculty and tech leaders. Our students enjoyed listening to various key note speakers that shared about the latest developments in the fields of engineering and artificial intelligence. Students had the opportunity to attend various breakout sessions to hear from professional in the field and learn about the innovations and advancements in engineering. The conference was an incredible learning and professional development experience for our female engineering students.



Don't delay! Now is the time to invest your time and energy into securing 2023/2024 scholarships and summer 2023 internships! See the links below and learn about securing scholarships and internships – two invaluable components of a STEM education.

<https://www.hancockcollege.edu/mesa/Scholarship.php>
<https://www.hancockcollege.edu/mesa/MESAinters.php>



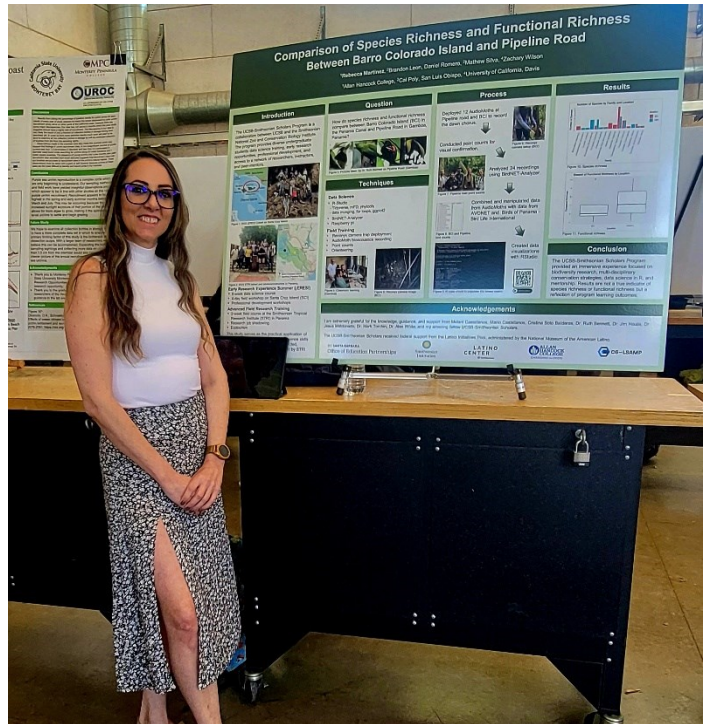
The only thing standing between you and scholarships/internships is your effort to make it happen. If you need help, see your MESA/STEM Centers for assistance. Make it happen for yourself. You will never regret it!

Embracing Entropy: A Journey of Adaptation, Evolution, and Transformation

by Rebecca Martinez, MESA Student, Biology

Life is a journey filled with unexpected twists and turns, and my path to success at Allan Hancock is a testament to that truth. If you've seen me around campus, you might recognize the face, but you might not know the journey that led me here.

We all start our journeys from different points, and mine began amidst adversity. At a young age, I was forced into independence when my mother was diagnosed with multiple sclerosis. As I navigated through life's challenges, I didn't fully grasp the extent to which my family's circumstances diverged from the norm. It was only with time and maturity that I began to understand the unique responsibilities I shouldered and the obstacles I faced. Driven by a desire for autonomy, I graduated high school early, eager to move on from formal education. At that time, college wasn't part of my plan.



Enlisting in the Marine Corps was my next chapter—a decision driven by a search for discipline and purpose. Joining the reserves presented new challenges but also eased the transition to civilian life. However, life took unexpected turns. Starting a family brought immense joy but the marriage didn't work out - beginning again as a single parent. Juggling work and parenthood became my daily reality, filled with novel challenges and uncertainties. Then, another unexpected twist: my son was diagnosed with Asperger's syndrome. I find myself continuously being challenged in ways I never anticipated. Yet, amidst the chaos, I've found moments of grace and growth, learning to embrace these experiences as opportunities for personal development.

One of the most pivotal moments in my life occurred when I found myself in an unhealthy relationship, causing me to lose sight of who I was. My life reached a critical point after a string of events nearly cost me my job. This experience served as a wake-up call, forcing me to confront my own worth and rediscover my inner strength. Determined to create a better life for myself and my children, I embarked on a journey of starting over (again). This led me to enroll at Allan Hancock College in Summer 2018. Initially, my focus was on prerequisites for dental hygiene, but soon I found myself captivated by science and the pursuit of knowledge. Switching majors to biology meant completing another degree with increasingly difficult coursework, but I'm glad I did.

Throughout my time at Allan Hancock College, I have been fully immersed in campus life, embracing every opportunity for growth and exploration. Serving as a tutor and mentor has been both an honor and a privilege, enriching not only my college experience but also instilling in me a sense of purpose and belonging. Through these roles, I have cultivated meaningful connections with peers, faculty, and staff, who have generously supported and encouraged me at every



turn. Their guidance has inspired me to pursue a future in education, with aspirations of one day teaching at a college like Allan Hancock, where I can pay forward the support and inspiration I have received.

With each unexpected turn in my journey, I've encountered new experiences that have pushed me to keep moving forward. This past summer, I seized the opportunity to participate in field research training at Santa Cruz Island Reserve and in Panama, while also learning data science through the UCSB-Smithsonian Scholars Program. These endeavors not only broadened my knowledge and skill set but also ignited a newfound passion for research and mentorship that I hope to carry forward.

As I eagerly await responses from admissions for Fall 2024 transfer to biology programs at Cal Poly, SLO, and UCSB, I am filled with gratitude for the journey that has brought me to this point. My story stands as a testament to the resilience of the human spirit and the transformative power of education. Each challenge I've encountered has been a building block, shaping me into the person I am today. I share my story not to seek

sympathy or admiration, but to inspire others who may be facing their own obstacles. Life's journey is unpredictable, yet it is through these moments of uncertainty that we discover our true strength and resilience.

When faced with challenges, remember to persevere. Your path, though it may be difficult or take unexpected turns, is uniquely yours. Accept the unpredictability; adaptability is the cornerstone of evolutionary success and essential for overcoming adversity. Recognize that the value of achievement is subjective; it's defined by the perspective from which we measure progress. Whether your goals are monumental or modest, every step forward deserves recognition. So, embrace the entropy, nurture your curiosity, and discover the beauty within your own narrative. Above all, never underestimate the power in your story. Thank you for being a part of mine.

Check Out the Robotics Club!

by Fiona Mcginnis, Club President

The AHC Robotics Team's goal is to provide college students with experience in building, designing, and manufacturing a competitive robot. Founded in 2023, the team competes in the MATE ROV Competition, a global robotics competition focused on advancing technology through ocean research and ROVs (remotely operated vehicles). Teams competing within MATE take on the role of a "company" led by a CEO or president and operate as if their competition's ROV was a product they would be selling to buyers within the ocean industry.

AHC's Robotics Team, The Deep-Sea Dogs, allows students to pick a specific subgroup of work to focus on and develop their skills alongside building and designing the ROV. The team is divided into four subgroups: manufacturing, programming, electronics, and marketing. Each subgroup is led by a team officer who is overseen by the CEO and advisors. On top of completing rigorous STEM courses, students spend a large amount of time building and testing the robot to prepare for competitions.





In the 2022–23 competition season, The Deep-Sea Dogs traveled to Longmont, Colorado, to compete in the MATE ROV World Championship. The team competed in the Pioneer class alongside other community colleges across the U.S. They received the Guts and Glory award from the competition and hold the world record for the 2023 Collaborative Mission.

For the 2023–24 season, the team is working to develop a new ROV kit to compete with in June at the World Championship held in Tennessee. For the competition this year, the team is working to develop a float along with the ROV, which is a vertical profiling device used to collect data from the pool to complete a set of challenges for the game.

The team appreciates the support from AHC students, staff, and the STEM/MESA Academic Success Center. You can check out our progress and upcoming events on Instagram @ahc.robotics.

Reach Out - Use Your Resources!

by Professor Dom Dal Bello, Engineering

STEM students, please **use your resources**. There are quite a few for STEM students at AHC. Why would you not do all in your power to learn class material?

- **Faculty Office Hours.** Full-time faculty have five office hours per week, and most of your STEM courses are taught by full-time faculty. Get help early so you understand the material that is foundational.
- **Weekly MESA/STEM Review Sessions and Organized Study Groups** – or organize your own group. Meet with other students consistently (not just right before an exam). Among other benefits, working with other students: (1) keeps you accountable; (2) allows you to learn from one another; (3) solidifies your knowledge when you explain things to one someone else.
- **MESA/STEM Tutors.** You have a lot more help than any previous set of classes with your instructors and our Embedded Tutors.
MESA/STEM Tutor
Schedule: <https://www.hancockcollege.edu/mesa/aew-tutoring-schedules.php>
- **Math Center Tutors.** Get drop-in help with math. Open 9-8 Monday-Thursdays, 9-2 Friday, and 11-4 Saturday. Zoom tutoring is also available:
<https://www.hancockcollege.edu/mathcenter/index.php>
- **Your Peers.** Your colleagues provide you both academic and social support. You are doing hard work; tough times are best survived when surrounded by friends.
- **AHC Academic Counselors.** Angelica and Christine in the MESA/STEM Academic Success Center are critical to ensure that your Student Education Plan is correct and updated, and provide expert advice on transferring and academic planning.
MESA/STEM website: <https://www.hancockcollege.edu/mesa/index.php?locale=en>

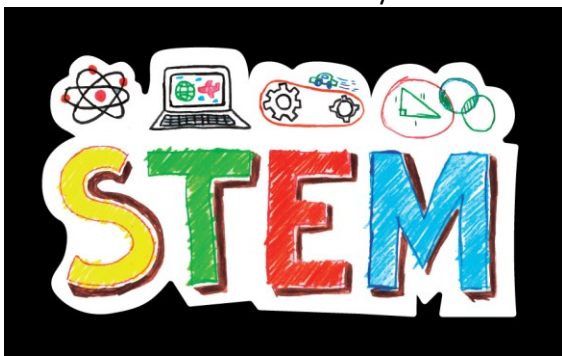


- **MESA/STEM Workshops and C6-LSAMP STEMinars**
MESA/STEM Calendar: <https://www.hancockcollege.edu/mesa/calendar.php>
C6-LSAMP website: <https://www.hancockcollege.edu/mesa/c6index.php>
- **Outdoor Whiteboard.** When the weather starts getting warmer, you may want to study outside. At the end of Fall semester, at Christine's and my request, an outdoor whiteboard was installed to the right of the MESA/STEM Academic Success Center. Please use it!

If you are having difficulties with your classwork, life, etc., get connected as soon as you can. Do not wait until the semester is nearly over. **A small correction now prevents a larger correction (or impossible correction) later in the semester. Schedule your week, including dedicated study hours.**

A few of you are being "Lone Wolves". I graduated at the top of my class at UCSB, but I would have been able to do so unless I had a good group of friends who I studied with. We learned from each other, we taught each other, and we supported each other when things got tough for us ... in class and in life.

Do not feel embarrassed that you do not know how to do something. That is what we are here for – to learn. Put in effort; study; talk about the course material with peers and faculty; ask for help.



One of the most frustrating things for faculty and staff is when students who have potential do not ask for help, or do not put in effort to help themselves succeed. Your education is not a spectator sport.

There are a lot of people who want you to reach your goals. They bring various skills, knowledge and resources to help. Reach out.

Join the Computer Science Club!

Hi, my name is Bastain Slater-Tyler, Co-President of the Computer Science Club, and I'm excited to share our club's endeavors with you!

At the Computer Science Club, we're dedicated to honing our problem-solving skills through the use of online resources. We frequently utilize platforms like LeetCode to tackle industry-standard interview questions, and we also explore more creative challenges through websites like the Euler Project, curated by Naomi Lounsbury, which offers over 800 interesting problems to solve. Beyond sharpening our problem-solving abilities, we're passionate about creating projects that are available to individuals with different levels of computer knowledge.

Currently we're busy in an ambitious collaborative project aimed at developing an online platform for easily monitoring noise levels across campus—an idea sparked by one of our member's observation of the decibel meter in the MESA/STEM Academic Success Center. Our Co-President Saul Chavez is spearheading this project, propelling it forward full steam ahead. We're also building simpler projects that are more approachable. From building small interactive games using the Godot engine to building simple websites with languages like JavaScript and frameworks like React, we're constantly expanding our horizons. Whether you're a novice or an experienced coder, we invite you to join us at the Computer Science Club and explore the endless possibilities of computer science together. Find us in M500!



Enjoying the Journey

by Lindsay Tafoya, MESA Student, Chemistry



Hi! My name is Lindsay. I am in the middle of that picture over there. I am 26 years old and I like pizza. I grew up in a place called Visalia, CA. I attended a high school called El Diamante, and graduated in 2015. I started going to a community college called College of the Sequoias. I know what you are thinking. That's a long time to be going to community college. But, I had no idea what I wanted to go to school for.

When I first started, I had chosen to go into nursing. I made it to the last semester of general requirements before the nursing program, but then realized I didn't actually want to be a nurse. I think if you are going to be a nurse you should want to help people. And while I thought that stuff was cool, my focus wouldn't have been to help

people. It would be to learn cool new things. So, I had to choose something else. One of the last classes I was taking before the nursing program was chemistry. I've always enjoyed science classes. I remember, in elementary school, there was this substitute. And whenever we had him, he would bring these little science toys that we could play with. We would play with the science toys and sing little songs, and those were always my favorite days.

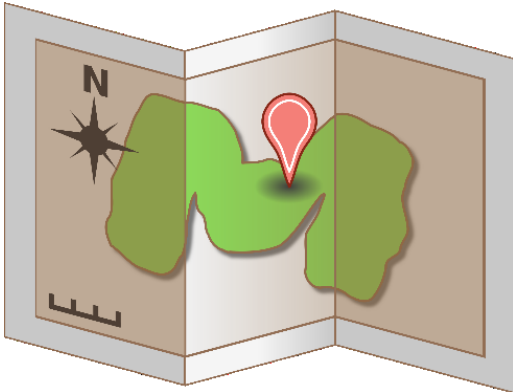
Then in middle school, my favorite days were when we would watch Bill Nye the Science Guy. Then, when I actually started taking chemistry classes, I realized that was what I enjoyed learning about the most. It's one of those classes that explains how the world works. When I was taking my first chemistry classes, there was this lab tech. She was just this kooky lady who was always excited about chemistry. She would give us stickers when we did a good titration. I remember she gave me a Nicolas Cage sticker for one of mine. Why Nicolas cage? I have no idea either. But I think if I end up as the kooky mad scientist lady who gets people excited about chemistry, I will be pretty happy. So, I decided to major in chemistry. I moved to Santa Maria in the beginning of 2022 and started going to Allan Hancock College that fall. It is a bit smaller than the school I was going to before. There is often only one class available at a certain time. But that means you get to meet a lot of new people. And those people will often go on to have more of the same classes as you. And that is exactly what I did.

I am very grateful to have met many awesome people. Studying with others is much better than studying alone. After this semester, I will only need organic chemistry and physics classes. I will apply to university in the fall and hopefully graduate from Allan Hancock next spring. I hope to go to Cal Poly or UC Santa Barbara. I have no idea what I want to do with a chemistry degree. I'm just figuring stuff out as I go along. I may not know where I will end up but I'm going to keep on enjoying the journey.



Check Out Our STEM Maps!

by Angelica Eulloqui, MESA/STEM Academic Success Center Counselor



The AHC STEM maps are a great tool for students to learn about the various degree options that can be accomplished at the college. The college provides local AHC degrees and/or Associates Degrees for transfer in all STEM areas. We have developed STEM maps that provide comprehensive information regarding the requirements needed to complete a STEM degree and transfer to a 4-year university. STEM maps help student stay informed and on -track. Since there is not a transfer degree in engineering available, we have created engineering maps that are designed to ensure that students complete all of the required coursework at AHC in order to be as competitive as possible to Cal Poly, SLO. Although the STEM maps are a great resource we encourage that all STEM students meet with MESA/STEM Counselors, Christine Reed or Angelica Eulloqui to develop a comprehensive student education plan that is catered to the student's major and university transfer goals.

Map are available at <https://www.hancockcollege.edu/pathways/index.php>

La Luz al Final del Túnel

by Saul Chavez, MESA Student, Computer Science

A long time ago, I found myself believing that I did not have much to offer this world and struggled to find myself, my passions, my interests, my goals, etc. In hindsight, considering my circumstances at the time, I do not blame myself as my family was not well off by any means and my parents often worked long hours; thus my parents paid little attention to my academic life and, due to financial constraints, I was never enrolled in any youth programs or sports which at the time severed my development. In addition to this, while I was enrolled in elementary school, my peers were of similar circumstances and as such many of us, I believe at the very least, did not know what to do with ourselves or our time. Most of us caused problems in one way or another and often competed to be the worst student possible. In other words, we competed to be the worst students possible academically and behaviorally. At the time being at the top of the class was arguably one of the worst positions you could be in as that would mean that those around you would shun you or make remarks about you. I had little interest in being a top student and much preferred to spend my days doing anything but schoolwork.



As I entered middle school two critical events occurred. I began to get skimming into the world of teenage delinquency by making friends with other students who while not directly gang-related were at the very least affiliated and many of them had started experimenting with drug use. At that time though, my brothers had begun to work toward turning their own lives around. On one hand, I began to finally have positive role models in my life, but, on the other, I made friends who were negative influences upon me. In the end, I ended up giving in to the negative influences and during my second semester in seventh grade, I got suspended from school for buying an ounce of weed from another student. This



was my first wake-up call and I remember the look of disappointment on both my mother's and father's faces and to this day I have not forgotten it. This was the moment when I reevaluated my friendships and I thankfully eventually left that group of friends, I suppose the process was made easier as many of them eventually ended up getting expelled from school. I was no saint after this experience, but it was arguably the most critical of all as I then vowed to attempt to stay out of trouble with some degree of success other than some petty incidents such as class disruptions and small-scale physical confrontations with other students. Additionally, at this point, the overarching influence became my brothers as well. The main issue I faced was how to

go about getting my life into shape, and the big question I pondered was "how do I become like my brothers?" This, unfortunately, took years to figure out, however, I made some small steps by getting involved in sports once I entered high school. I still lacked academic discipline at this point in my life, but I was grateful to have survived the negative influences within my community.

The next turning point in my life was the COVID-19 Pandemic. At this point in my life some personal events that caused my outlook to look bleak had unfolded, many of which had occurred before COVID and were only exacerbated by the pandemic. I found myself in a new low point within my life; however, about halfway through my junior year, I finally devised a plan to turn my academic life around and turned to STEM. This is where I began to discover the field of computer science, but had to come to terms with the long and treacherous journey ahead of me. I finally began to get my life in order and despite the circumstances of the pandemic studied rigorously. I vowed that I would get a 4.0 during the second semester of my junior year and, on top of that, I would learn about other subjects in my free time and devote time to sharpening my math skills. I remember relearning math from the beginning to Algebra 2 and then once the semester began I continued onto precalculus. In my senior year I vowed to work a minimum of twenty hours a week and to experience AP classes as that was something I'd never done before.

In the end, I conquered my goals and now I find myself here at AHC where I am now a peer tutor for Calculus 2, Vice President of Alpha Gamma Sigma, and one of the Co-Presidents of the Computer Science Club while happily majoring in Computer Science. While my path is not set, there countless possibilities that my Computer Science degree can grant me, so much so that it can be overwhelming at times. If I had to pick something I suppose that I would love to work in the fields generated by the advancements in artificial intelligence within the past few years as I believe technology, in general, can be transformative and artificial intelligence has a special potential to transform the lives of every person on this earth for the better. Nevertheless, I'll admit this school stuff it's a lot of work and my schedule can be quite rigorous at times, but I have loved my experience here at the college. Every professor I have taken has offered a unique and intriguing experience and all the faculty I have met have been very supportive and genuinely display a passion in seeing through the success of every student. While I do recognize the work I have put in, I know I ultimately owe it all to my brothers, my parents, and to the college for setting me up for a successful future! And for all you readers out there, thank you for your time, and know that even when life appears to be dark and bleak there is always a light at the end of the tunnel!



Check Out Your MESA/STEM Academic Success Center (M500)



Features include:

STEM Study Center with student-use computers and project completion tools

STEM Learning Lab including comprehensive STEM tutoring services and supplemental course material resources

STEM Collaborative Classroom for small group study and instruction

STEM Student Decompression Lounge when it is time to take a break

STEM Onsite Academic Counseling available to meet the academic and career planning needs of STEM students at Allan Hancock College

Spring 2024 MESA/STEM Academic Success Center Activities

Jan 26— UCSB-Smithsonian Scholars Program Presentation

Feb 2— Financial Aid and Scholarship Workshop

Feb 5— E5 Women in Engineering Info Session

Feb 9— Internships Opportunities & Strategies Workshop

*Feb 14— Resume Workshop

Feb 21— Guest STEM Speaker - Tony Guy, CEO of Adient Aerospace

March 8— Recognizing and Managing Burnout Workshop

March 13— Guest STEM Speaker - Dr. Dan Lofgreen, Engineering Fellow/Focal Plane Technical Director of Raytheon Vision Systems

March 15-16— E5 Women in Engineering Field Trip to Silicon Valley

March 18-19— San Jose State University & Industry Field Trip to *Intuitive* in Sunnyvale, CA

*April 5— You're Outta Here Workshop

April 5— Tour of Owl Biomedical in Goleta, CA

April 17— Guest STEM Speaker – Mac Jones, Security Software

*April 19— You're Outta Here Workshop

May 3— MESA/STEM Student Achievement Celebration 2024

*For students who are planning on transferring Fall 2024, don't miss this workshop!



The Mathematics, Engineering, Science Achievement (MESA) Program

is an academic program that provides a wide range of support services and activities aimed at fostering student achievement and increasing the success and participation they experience while pursuing a degree in mathematics, engineering, computer

science, biology, architecture, kinesiology, or other science-based programs. MESA enables students to prepare for and graduate from a four-year university with a math-based degree. It also seeks to increase the diverse pool of transfer-ready community college students who are prepared to excel as math, engineering and science majors. Through the



program, students develop academic and leadership skills, increase educational performance, and gain confidence in their abilities to compete academically and professionally. Visit our website at www.hancockcollege.edu/mesa.