MESA MILESTONES

Featuring momentous affairs of the MESA program at Allan Hancock College

Spring 2025

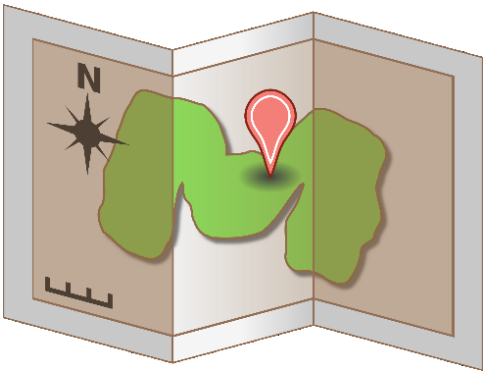
MESA/STEM Celebrate Their Alums!

by Christine Reed, MESA/STEM Academic Success Center, Coordinator/Counselor

It has been a project for years! You know the ones – that keep getting moved down the list because of more pressing issues. Well, we finally did it! With the help of AHC's College Advancement Office, Dom Dal Bello, and the awesome MESA/STEM team, on November 23, 2024, over 50 AHC MESA/STEM graduates dating back to 2002, STEM faculty (current and retired) and some of our current students joined us for a dinner celebration. Alums had the opportunity to tour our "new" MESA/STEM Academic Success Center (M500), visit classrooms and labs in Buildings M200 – 400 (their ol' stompin' grounds), catch up with former classmates and faculty, and connect with our current students. It was so fun to see them "all grown up," hear about their successes, and meet their families. We have now created an alum group in which we communicate with monthly, and are already planning our next celebration for sometime in the fall when over 150 alum will be invited. Good times!

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

Breaking the Wall – Rompiendo el Muro

by Sergio Villanueva, Mechanical Engineering major, MESA Student

My path at Allan Hancock College has been full of struggles, challenges, learning curves and learning how to break the wall. I was raised in La Concepcion, Zacatecas, Mexico. At the age of 18 years old, I immigrated to the States, and I was forced to work because I needed to help my parents meet the basic needs. One day, while working in construction I was injured and unable to return to work in the construction field. On June of 2014, I enrolled at Allan Hancock College, to obtain my GED and pursue a short-term program such as getting a certificate. That was the first wall I had to break because I had to accept that I would no longer be able to work in construction which is the job I had been doing since I have arrived to the States.

Once I started taking credit classes, I received support from the college, and I became motivated to pursue a higher education degree. Something I would have never dreamed not only as a child but as an adult previously living in a third world country. After I earned a Drafting Certificate, that marked the beginning of my academic and career goal at the college. I knew there was something waiting for me to pursue and discover in higher education. I recalled when I took my first drafting class, I became captivated with the drawings, and I wanted to learn about machinery. I wanted to continue and learn how an engineer can design and make calculations for those complicated parts that I drew during class. This class brought me memories when I was young living in Mexico because my older siblings worked with machineries, and I saw the type of work the machines were able to do.

My second break in the wall was January 19, 2022, the day my father passed away. That was the first week of spring class. I tried to concentrate during class but emotionally, it was very challenging because I needed to grief my dad's death. I participated in a program called ENGAGE and had a mentor from Allan Hancock College, Dominic Dal Bello and from Cal Poly, SLO, Paul Valadao. While on a visit with my mentor, Mr. Valadao we had an open conversation about the passing of my father and how that affected me, and it was making it challenging to focus on school. I remember my mentor told me, "Sergio when I lost my father, that was very hard, and I had to grieve his death. It is okay if you take time this semester because you need to grieve your father's death." I am thankful for that advice because it was okay to accept that at times, we humans need to confront our emotions to be emotionally healthy. I took the semester off and returned to school the following semester.

As I participated in the ENGAGE and MESA programs. I learned that entering the science field degree comes with obstacles especially as a first-generation student, it has is challenges because I didn't have a role model growing up in my family who could motivate and guide me to pursue higher education. My Cal Poly, SLO mentor gave me a wise advice, "If you are having a hard time understanding a concept, get the help and join study sessions groups." I must admit this was the third wall I needed to break because I was used to working independently and it was a learning curve. I had to get out of my comfort zone and thus, led to me to grow as a student and person. I eventually asked my teachers for help and learned that if I had asked for help in previous semesters, I might have transferred earlier.

Then on November 29, 2024, my mom had been hospitalized and we were informed there wasn't anything medically that can be done to keep her alive. That was one week before finals, and I only hoped for a miracle. I had to break the fourth wall which was sharing my current personal life circumstances. I remember speaking to my physics teacher, Mrs. Metaxas and informing her of what was happening with my mother. She gave me the option to take the final later or take it on the final date. I decided to take it on the final date, which was on Monday, December 9, 2024, and my mother passed away on December 12, 2024.

Although, I am an English Learner student, breaking the language barrier was a challenge and I am thankful to Mrs. Chung for motivating me to become a statistics tutor. It has taken me over 10 years to accomplish my goal but as people say, one step at a time with patience and perseverance. This past week, I received one of the best news that I could have received, I have been admitted to Cal Poly, SLO as a Mechanical Engineer major. Breaking those walls were learning curves in my education and I would like to thank ENGAGE, MESA, the faculty and especially Professor Dominic Dal Bello and Mrs. Metaxas.

Perseverance, Purpose, and Progress

by Lorena Hernandez-Chavoy, Industrial Technology major, MESA Student

As a first-generation Latina college student, my academic journey has been shaped by the sacrifices and resilience of my family, who migrated from Mexico in pursuit of greater opportunities. Their determination instilled in me a deep sense of purpose and a commitment to succeed. Not just for myself but for the generations who came before me.

When I began at Allan Hancock College, I faced significant health challenges that affected my ability to succeed academically. After struggling and falling into academic probation, I made the decision to refocus and seek out the support I needed. This was a major setback as I lost my financial aid, which resulted in me working full-time and being a full-time student for the majority of my years at Hancock. As you can imagine, the time commitment for this was difficult to manage, and I believe this was one of the biggest reasons I struggled to transfer in a timelier manner.

I have experienced things in my life that resulted in me reflecting on my actions, goals, and accomplishments. These moments gave me the courage to seek out help from those I got to know and trust around campus. With the help of several key campus programs—including the MESA, Learning Assistance Program, Basic Needs Center, Tutorial Center, and Student Health Services—I was able to rebuild my academic standing, develop effective strategies for success, and take care of my well-being along the way. These resources were instrumental in helping me raise my GPA, retake and pass previously failed courses, and rediscover my confidence as a student.

As I progressed, I found my passion in Industrial Technology and shifted my academic focus. I gained valuable hands-on experience through internships with local industry partners and competed in SkillsUSA, further developing both technical skills and professional confidence. I was able to compete at the state and national level for CNC Milling through SkillsUSA. I've had the opportunity to work with companies such as MW Components, Melfred Borzall, and the U.S. Navy through their PIPELINES program with UCSB. More recently, I participated in a Cleanroom Training through UCSB's PACE program. This is something I am extremely grateful for as it put me in the center of semiconductor fabrication. Once again, this allowed me to align my career goals with dreams I never thought I'd experience.

I used to feel embarrassed and discouraged by the number of years I had to put into community college because I unfairly compared myself to my peers. At this point in my journey I'm able to see things differently and be proud of what I could accomplish for myself with the help of this amazing community. I am honored to share this story, which is unique and my own, and I feel I have gained knowledge and wisdom I would like to share with people who feel how I once felt in my early college career.

During my time at Allan Hancock College, I earned an Associate of Science in Machining and Manufacturing Technology and an Associate of Arts in Mathematics and Science for CSU Transfer. I also earned certificates in Engineering Drafting, Machine Technology, and Transfer Studies. These accomplishments reflect not only my academic progress but also the tremendous impact of student-centered support services and faculty who believe in their students.

As I write this, I received the news I have been hoping and working for all these years. I have been accepted to Cal Poly San Luis Obispo to pursue a Bachelor's degree in Industrial Technology and Packaging. I'd like to share a quote that resonated with me and pushed me to succeed during my weakest moments: *"I learned that I was going to have to work harder than anyone else to succeed. But that's okay. I was determined."*

Inspired to Chase my Dreams

by Nathaniel Victorino, Computer Science major, MESA Student

I'm Nathaniel! I like programming, video editing, and going to the gym. First and foremost, I would love to thank Mrs. Reed, Mrs. Eulloqui, Mrs. Mathieu, Mr. Miyahara, and many others for making the MESA/STEM Center a welcoming community of support for students like me. I am on track to graduate with my associate's degree in science this spring 2025, transfer to university this fall to earn a bachelor's degree, and plan on possibly pursuing my master's degree.

During my time at Hancock, I have developed websites for local businesses within Santa Maria, and I am currently studying OWASP so I can securely create new websites that include booking appointments, subscriptions, and other cool things. I am going to use my understanding of web application vulnerabilities to create a customer self-serviced machine for generating programmed vehicle keys.

When I entered college, I only weighed about 100 pounds, just recovering from severe health issues and the rock bottom of my life. I regretted everything. I am not a perfect prodigy in programming, I do not have anyone pushing me to learn computer science, I have taken many breaks, and suffering from a panic attack disorder made me feel like I would never be the happy kid I once was. My mind was in a bottle of being successful at a young age and honestly still is. With all the pressure, I forgot to be myself. I was excluded from a lot of friend groups. I will forever be in progress of improving myself as a person and things have been going great ever since. Looking back at these hard times makes me smile a lot because for some reason the worst circumstances are what inspire me to chase my dreams.

My feelings of isolation centered my focus on working on a video game community to bring fans, artists, music artists, designers, programmers, 3D modelers, VFX artists, content creators, and other fields of science and creativity involving people of all ages together in one place. I hope I can own or be part of this community, and I will continue to pursue something meaningful in this aspect of bringing people together no matter what it may be. I am only a kid who dreams big now, but my determination is all I need.

My freshman year of high school was the first time I ever learned to program through game development with LUA, and I immediately became obsessed with solving problems. The dopamine hits of solving a problem after six hours of debugging just to find out your inequality sign is backwards was not so awesome, but very relieving! Of course, this was a time before AI came around, but even today with the help of AI you can learn even more awesome things at a much quicker rate! Since then, I have documented every script and concept I learned. When learning from YouTube, I would often challenge myself by trying to predict what the person would type ahead of time, and it was a lot of fun. To students who are unsure if computer science is for them, I recommend taking a free online course from Harvard called Cs50x by David Malan. There you will find a very passionate instructor and strong foundations to cover.

I hope my story can inspire someone including yourself to do something meaningful to you. Even if it's not much, it feels genuinely great to do something that has always been on your mind outside of our obligations. Thank you, MESA, for these last two years!

AHC STEM/MESA "Giving Back"

by Marc Carson, MESA/STEM Academic Success Center Industry Coach

Picture this...you retire from a great career with Hughes Aircraft and the Raytheon Corporation, having served in various roles starting as an Aerospace Vehicle Technician and finishing up as the interim General Manager. Do you grab your beach sandals and golf shoes and head out for a permanent vacation, or do you consider giving back to your community?

For the past five years I have been blessed with serving as a Part-Time Instructor and for the past year as an Industry Coach for the STEM/MESA Academic Success Center and Industrial Technology Department at Allan Hancock College. My Industry Coach role is to primarily help the students "connect the dots" by establishing mentor relationships, resume building, personal skills and networking improvement, and obtaining internships/work experience. As folks in industry know, internship experience is a great way to help confirm a student's educational and career objectives. It is also a great way to find talent right here in our community. One of my most exciting days at AHC was when one of our former students contacted me sharing the good news that he had just landed a summer internship at Raytheon. If you are an AHC STEM Alum and feel the call to "give back" by establishing an internship opportunity for our awesome STEM students, please reach out. I'd love to work with you on this rewarding journey - Marc Carson at marcus.carson@hancockcollege.edu. I look forward to hearing from you!

BEACH Women in Engineering Conference 2025

by Angelica Eulloqui, MESA/STEM Counselor

California State University Long Beach hosted a phenomenal conference on Friday, Mach 28th, BEACH Women in Engineering. With over 300 attendees, 18 female students from Allan Hancock College had to opportunity to participate. The theme for this year's conference was Unlocking your Potential! More than 80 women leaders in technology and engineering were in attendance sharing invaluable information. The conference consisted of technical presentations by industry experts, career panel and coaching circles with advice from industry professionals. MESA students attended sessions on topics like Generative AI, Space Tech, Metamaterials, Clean Energy, Computer Engineering Technology and much more! The conference allowed students the opportunity to network with other engineering majors, faculty, and industry leaders, and hear from women engineers who've gone on to become successful in their fields.

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 2025 MESA/STEM Academic Success Center Activities

Jan 31— Financial Aid and Scholarship Workshop (1 - 2pm; M-502)
Feb 6— UCSB-Smithsonian Scholars Program Presentation (11am - 12pm; M-502)
Feb 7— Internships Opportunities & Strategies Workshop (1 - 2pm; M-502)
Feb 12— Connect with MESA/STEM Industry Coach (1:30 - 3pm & 5:30 - 7pm; M-502)
Feb 19— Connect with MESA/STEM Industry Coach (1:30 - 3pm & 5:30 - 7pm; M-502)
Feb 27— Connect with MESA/STEM Industry Coach (2 - 3:30pm & 5:30 - 7pm; M-502)
Feb 28— Resume Workshop (1 - 2pm; M-502)
March 7— Recognizing and Managing Burnout Workshop (1 - 2pm; M-502)
March 8— Destination College MESA Day 2025 at UC Santa Barbara
March 17-18— Field Trip to CSU Stanislaus & UC Davis (depart 7:00am; sign-ups start in early March)
March 27-28— BEACH Women in Engineering Conference 2025 at CSU Long Beach (sign-ups start in early March)
April 4— You're Outta Here Workshop (11am - 12pm; M-502)
April 4-6— 2025 MESA Student Leadership Retreat in Santa Cruz, CA
April 18— You're Outta Here Workshop (3 - 4pm; M-502)
May 2— MESA/STEM Student Achievement Celebration 2025 (4 - 6pm; ARC Patio)

Pre-recorded MESA/STEM Workshops are available on our website at
https://www.hancockcollege.edu/mesa/mesasteminars.php

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.