

MESA Milestones

Featuring momentous affairs of the MESA program at Allan Hancock College

Fall 2023

Central Coast Community Colleges Present Summer 2023 Research

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

Source: <https://studentresearch.calpoly.edu/surp-symposium>

The Annual SURP+ Research Poster Symposium took place this year from 1:30pm to 3:30pm on Friday, October 13. Faculty, staff and students were invited to learn about student research at Cal Poly and at partner California Community Colleges by engaging with over 100 research and creative activity projects completed in Summer 2023 as part of Cal Poly's Summer Undergraduate Research Programs (SURPs) and the California Central Coast Community College Collaborative (C6) LSAMP program. The event was held in the Engineering Plaza.

Student poster presenters worked alongside faculty members and community partners throughout the summer, resulting in student-faculty co-authored publications and university-industry-and-community collaborations.

Students presented their research findings during the event that is jointly organized by the Bailey College of Science & Mathematics, the College of Agriculture, Food & Environmental Sciences, the College of Engineering, the College of Liberal Arts, the Orfalea College of Business, and the Office of Student Research in collaboration with LSAMP B2B California Central Coast Community College Collaborative (C6) – www.hancockcollege.edu/lsamp.

Twenty-six community college researchers – from C6 campus, Allan Hancock College, Cabrillo College, Cuesta College, Monterey Peninsula College, Moorpark College, Oxnard College, Santa Barbara City College and Ventura College – shared their research as part of this event.

This event was co-located with a Mini Graduate School & Research Opportunities Resource Fair featuring recruiters from three states as well as Cal Poly and UC Santa Cruz. The fair was for students interested in graduate programs or learning how to get involved in research activities in preparation for a master's program. Students were able to learn about doctorate, master's and certificate programs offered at Cal Poly or partner graduate school institutions as well as resources to support undergraduate and graduate research activities.

Off-campus recruiters in attendance included Oregon State University; Colorado School of Mines; University of Colorado Boulder; and UC Santa Cruz Computer Science and Engineering Department. Cal Poly resources included Career Services; Graduate Education/Graduate Admissions; Office of Student Research/BEACoN/CSU LSAMP; Extended Professional and Continuing Education; School of Education; and the six colleges.



Alonso Portillo, AHC STEM student, presents his "Comparison of the Efficiency of Horizontal vs. Vertical Hydroponics on Leafy Greens" summer 2023 Cal Poly SLO research project

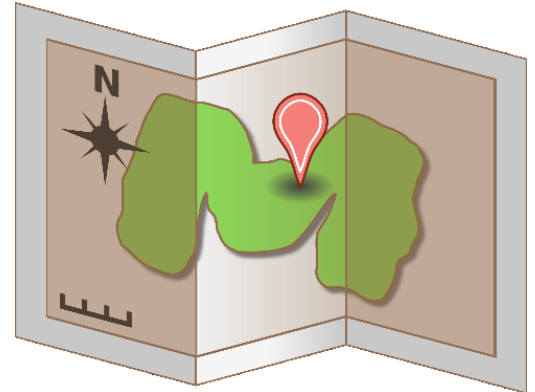
Allan Hancock College Poster Presenters:

- **Alonso Portillo** - *Comparison of the Efficiency of Horizontal vs Vertical Hydroponics on Leafy Greens*
- **Fiona McGinnis** - *Below the Surface: Underwater ROV's*
- **Rebecca Martinez** - *Comparison of Species Richness and Functional Richness between Barro Colorado Island and Pipeline Road*
- **Rubi Basurto** - *Redesign of an Indoor Recirculating Multitrophic Aquaculture System*
- **Nick Quang** - *Transportation Network Modeling of the State of Connecticut*
- **Naomi Lounsbury** - *Building DMX Lighting Equipment*

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>

My Passion for Art and Math

by Jasmin Solano, MESA Student, Civil Engineering

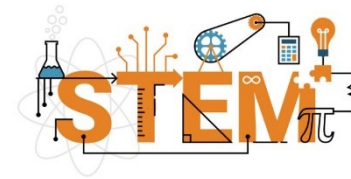


Since the 1st grade I had always loved math. I joined clubs for it and enjoyed explaining how to solve a problem to people. In the 2nd grade I found pleasure in drawing and rekindled that love in high school when I took my first art class. During high school I wasn't sure what major I wanted to pursue in college - maybe something in art or math, so I looked for majors that were both. My art teacher recommended that I be an architect and explained how I could design buildings. I thought I was going to major in architecture, but my brother told me about civil engineering and how it was similar, but as an engineering you had more variety of career options. As I learned more about civil engineering, I found a job for which I was interested - civil drafter. A civil drafter designs the civil engineering projects combining art and math. I look up to my brother who is now a full-time electrical engineer and thank him for helping me discover this major.

My parents couldn't help with homework since they only went to school up to elementary so my brother helped me out with school and paperwork. I also look up to my parents who are the most hardworking people in my life - I had the chance to learn because of them. My dad has always told me since I was young that my siblings and I can achieve anything we want if we seize the opportunity. Although my dad couldn't pursue his dream as a mechanic/engineering, I hope I can accomplish my dream for him and use the opportunity he gave me to be successful.

Get Connected and Stay Strong

by Dom Dal Bello, Engineering Professor



Being a STEM student is not easy! You may feel like you are the only one feeling overwhelmed, struggling with your schedule and never have enough time in your day to accomplish what is needed. Or maybe you are not receiving the grades you wanted or accomplishing the goals you have set. Be assured, you are not alone. Most STEM students feel this way at some point in their STEM educational journey – especially when they are new to a STEM college program.

What is the best way to excel as a STEM student? **Get connected** as soon as you can. Do not wait until the semester is half-way over. A small correction now prevents a larger correction (or impossible correction) later in the semester.

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.

Please remember to **use your resources**. There are quite a few for STEM students at AHC:

- **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 for your future.
- Attend weekly **MESA/STEM Review Sessions and Organized Study Groups** – or organize your own group. Meet with other students consistently throughout the semester (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 someone else.
- **MESA/STEM Tutors.** Tutoring is available in most STEM courses. For engineering, David Beil is our Engineering Instructional Assistant who was hired to help support engineering students and oversee the engineering labs. Embedded tutors are available in Chemistry, Physics, Engineering, Biology and Calculus. You have a lot more help than in the past – utilize it. *MESA/STEM Tutor Schedule:* <https://www.hancockcollege.edu/mesa/aew-tutoring-schedules.php>
- **Math Center Tutors.** Get drop-in help with math. Open 9AM to 8PM Mondays-Thursdays, 9Am to 2PM Fridays, and 11AM to 4PM Saturdays. Zoom tutoring is also available. *Math Center website:* <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 pursuing a common goal.
- **AHC Academic counselors.** Angelica and Christine in the MESA/STEM Academic Success Center are critical to ensure that your Student Educational 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.** We fought hard to get an outdoor whiteboard next to the MESA/STEM Academic Success Center. If the weather cooperates, don't be afraid to use it.

There are a lot of people on campus who want you to reach your goals. They bring various skills, knowledge and resources to help. **Engage** in the academic environment; students who try to do things alone generally do not succeed (and if they do, they do not succeed as well as they could have). Keep strong!

Opening My Wings

by Rubi Basurto Benito, MESA Students, Civil Engineering



Throughout elementary school my parents always tried to help me. As the oldest child, they did everything with me, but it got to the point where they couldn't help me anymore. I had to open my wings. Even though I was always an introvert, I knew I had to get out of my comfort zone. I joined wrestling my first year of high school and I felt like I was part of something bigger other than just myself. I focused on school and sports. I didn't think much about college only because I didn't know what it was and nobody in my family had gone that far in education. Not until my junior year of high school did I realize that the other students around me were taking AP classes so they could go to a four-year university. I was confused at the time, but I realized that I just followed most of the format which meant that I could go to a university or college. The one thing that I didn't think about was the payment for college. I had come this far to do what? Senior year of high school I applied to four UC's and four CSU's. I got into Cal Poly, SLO as a Civil Engineer and it blew my mind. I didn't think I would get in, but I did. I looked at my financial package and it wasn't the best. Even though I had done everything correctly. I rejected the offer from Cal Poly before classes started in September. I didn't start Allan Hancock College until October for the 8-week classes. This would change everything.

Once I started, I couldn't stop. I kept taking classes after classes and, honestly, I didn't give myself a break. I didn't care about taking a break because I wanted to transfer out. This caused me to fail my physics class and honestly it was the first time I had ever failed any class. I had always been a 3.8 GPA student, but with college it had been an experience I never thought I'd have. I thought I couldn't keep going anymore because everywhere I turned people were ahead all the time. I didn't realize that the study methods I was using before weren't helping. I had to seek help, and I realized that I wasn't the only one. Other engineering students were also going through the same thing. Even though we were a mixture of different ages we all needed some type of help with the classes we were taking. We used each other to study and honestly it was one of the best things that could've happened. It also helped me build friendships that I didn't expect. Even if it takes me longer to transfer, I know that we are all at different stages in our lives.

Fast forward a year later. I started the Science & Engineering Club with Nathan and joined the Dream Club, Women in Engineering (E5), Computer Science Club and the soon to be Women in ACE. With all of these under my belt I realized that anything I put my mind can come into reality. I know what I'm capable of and if anyone can do it, it's me. Therefore, save a seat because I'll be there soon! With teamwork and support from colleagues, friends, counselors, and family anything can happen. I'm extremely glad I chose to start at Allan Hancock College!

ENROLL IN STEM 100

Success Strategies in STEM

- Learn about career options in STEM
- Develop effective learning strategies in STEM
- Plan academically using college resources
- Network within the STEM discipline

NOW AVAILABLE Winter Term Online

Landing a STEM Internship

by Angelica Eulloqui, MESA/STEM Counselor

It is never too early to begin the internship exploration process, but you might be wondering, what is an internship and why should I be thinking of getting one?

An internship is professional learning experience where you will gain work related experience in your career field. Internships provide a student the opportunity for career exploration and development, and to learn new skills. Internship experiences are invaluable, no matter where you are in your educational journey, you should be thinking about applying to internship opportunities.



Here are some helpful steps you should you be taking to land a STEM Internship...

- **Begin your search early in the academic year (fall semester) to land a summer internship**
 - Most internships, not all, are held during the summer
 - Summer internships usually have application deadlines early in the spring semester (February/March)
 - Check your emails regularly, your instructors and MESA/STEM will send you information about STEM internship opportunities
 - Attend STEM internship strategies workshop (hosted by MESA/STEM)
 - Utilize the [STEM Internship Toolkit](#)*
- **Identify internships that you are interested in applying to**
 - Review internships requirements
 - Maintain a running list of internship application deadlines
 - Prepare required materials, this can include, application, resume, cover letter, transcripts, letters of recommendations
- **Tap into your support network**
 - Instructors, Counselors and Staff are here to support you with this process
 - Develop a positive relationship with your support network, most internships will require you to submit letter of recommendation and your support network can help!
- **Apply!**
 - Believe in yourself and stay confident throughout the process
 - Prepare your applications and submit all required materials

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

E5 at Allan Hancock College

The E5—**Enticing, Engaging, and Empowering Emerging Engineers** program at Allan Hancock College provides female engineering students with the support and resources to successfully transfer to a four-year university and achieve their full potential as engineers and as leaders.

Throughout the past year the program has been actively supporting our female engineering and computers science majors to build community, network and grow professionally. Students have attended various guest speaker sessions, where they



have had the opportunity to learn about careers in engineering and computer science and also grow their professional network. Additionally, our students have attended industry trips, in our local community and have learned about the different career opportunities available in the central coast related to engineering and computer science. This semester students have had the opportunity to engage in various activities and presentations.

If you are a female pursuing engineering or computer science or know a female who is, please encourage them to get involved with the E5 program at Allan Hancock College. For a list of upcoming events please visit our website.

<https://www.hancockcollege.edu/mesa/womenengineers.php>

Fall 2023 MESA/STEM Academic Success Center Activities

Sept. 15— “Start Here” MESA Program Convocation (10:00am-11:30am, breakfast served; M-310)

Sept. 22— E5 Women in Engineering Information Session (3:00pm-4:00pm; M-502)

Sept. 29— Scholarship Strategies for STEM Students (2:30pm-3:30pm; M-502)

Oct. 9— E5 Women in Engineering Information Session (10:00am-11:00am; M-502)

Oct. 13— California Central Coast Community College Collaborative (C6) & Cal Poly Summer 2023 Research Symposium

Oct. 20-22— 2023 MESA Student Leadership Conference in San Diego, CA

Nov. 17— SB Foundation Scholarship and FAFSA workshop (1:30pm-3:00pm; M-502)

Dec. 1— Internship Strategies Workshop (2:30pm-3:30pm; M-502)

Dec. 8-9— Overnight Field Trip - CSUN on 12/8, The Getty Museum on 12/9

UC/CSU Application Workshops — APPLICATIONS DUE NOVEMBER 30, 2023

Oct. 6— UC/CSU Application Workshop (12:00pm-2:00pm; M-502)

Oct. 6— UC Admission Application Personal Insight Question Workshop (2:00pm-3:00pm; M-502)

Oct. 20— UC/CSU Application Workshop (11:00am-1:00pm; M-502)

Oct. 20— UC Admission Application Personal Insight Question Workshop (1:00pm-2:00pm; M-502)

Nov. 3— UC/CSU Application Workshop (12:00pm-2:00pm; M-502)



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.

