Hancock Students are Smithsonian Scholars
by Christine Reed, MESA counselor/coordinator

Mario Castellanos, executive director of the Office of Education Partnerships at UCSB (an Allan Hancock College alum), is to thank for this amazing opportunity gifted to the STEM students of the Central Coast Regional Alliance. Under his leadership and use of his connections Mario guided his team and the alliance to make Smithsonian Scholars Week possible. This pilot program, engages students and their campus stakeholders in a weeklong, in-depth and hands-on discovery of academic and career opportunities in applied conservation science, research, and public education. From July 25 to August 2 four Allan Hancock College students, along with other students from colleges in the region, were hosted at the Smithsonian Conservation Biology Institute - George Mason University School of Conservation in Virginia and the Washington, D.C. Mall. Students learned about field-based survey techniques, including camera trapping, small mammal sampling, amphibian monitoring, bird banding, and vegetation surveys. They visited with key personnel from the Smithsonian National Museum of Natural History, Smithsonian Conservation Biology Institute, Smithsonian’s National Zoo, National Museum of American History, Smithsonian Tropical Research Institute, Latino Center, National Museum of the American Indian, and Smithsonian Office of Fellowship and Grants. During the latter part of the week, students visited flagship museums and research bureaus on the Washington, D.C. Mall.

The Allan Hancock College students who were selected to participate were Miranda Evangelista (MESA student, biology, transfer to Cal Poly SLO fall 2015), Megan Drap (STEM student, biology), Jana Gervacio (MESA Student, biology, transfer to Cal Poly SLO fall 2015), and Courtney Connolly (MESA student, biology, transfer to CSU Humboldt fall 2015). They said the experience was “amazing” and “life changing.”
With the increasing achievement gaps among underrepresented students in all academics fields, particularly in the STEM fields, community colleges and four-year universities are taking the lead as instruments of change. Allan Hancock College has decided to work toward closing these gaps by teaming up with Cal Poly, San Luis Obispo to provide academic support and mentorship opportunities to local students in their educational journey to a four-year degree. In its augural year, the Cal Poly Hancock Alliance Mentorship Program (CHAMPS), selected five students from the Central Coast to participate in the pilot mentorship program focused on providing first-generation and/or first-generation STEM students opportunities to network with peers and industry to gain guidance from upperclassmen in navigating coursework and leveraging resources to succeed in their preparation within their academic fields.

CHAMPS is a comprehensive mentorship program aimed at preparing students to transfer to Cal Poly and provide support through degree completion. Allies have been identified at both institutions to provide students a contact and resource regardless of a student’s area of concern. At Allan Hancock College, key resource personnel are Christine Reed from MESA, Angelica Enriquez from the STEM Center, and Antonio Ramirez from Counseling. Key resource personnel from Cal Poly are Jackie Duerr from the Multicultural Engineering Program, Melissa Furlong from Cal Poly Admissions and Recruitment and Emily Liptow from the Americorp VISTA Program. It is important to note that institutions of higher education are not the only catalysts for change. A key resource for this program is Matthew Philley, who is a manufacturing engineer, who works for Zodiac Aerospace. Philley is a both an Allan Hancock and Cal Poly alumnus who provides guidance and training to our mentors.

As pictured, first-year students were able to begin their journey by connecting with their mentors before classes began in August. Mentors are tasked to check-in with their mentees on a regular basis to provide guidance and assistance as needed. All program participants are enrolled in the MESA program and have access to all the workshops to leverage positive gains toward their academics. In November, CHAMP students will be visiting Cal Poly and sit in an introductory course for first-year engineering students! If you are interested in being a mentor, please contact Christine Reed at creed@hancockcollege.edu. If you know anyone who is a high school senior who may be interested in the program, please send contact information to Antonio.ramirez12@hancockcollege.edu.

Thirty MESA students transferred to university fall 2015; 70% were from underrepresented ethnicities; 63% transferred to Cal Poly, San Luis Obispo
Evolving with the Times
by Ashley Wilburn, MESA Student, Computer Engineering

I moved to Santa Maria on July 5th 2014. Going into my senior year at a completely different high school with no friends, no familiar faculty members, and nobody that knows what you have done up to this point with your life was a very difficult thing to jump into.

While attending Ernest Righetti High School, I was vice president of my school’s Associated Student Body, libero on our varsity volleyball team, and an Honor Roll student taking all AP level courses. But at Hancock, I was just a name on a paper and had to start all over again.

I started by doing the best I could in every class that I took. By joining a few programs on campus such as MESA, EOPS, and the Science and Engineering Club, I have broadened my friendship and faculty base. They were all very helpful in guiding me to make the decision to choose computer engineering as my major.

My father was always taking a part computers in the office at home, and I would sit with him and ask him what the parts were. The idea of an artificial intelligence was so fascinating to me. We can create machines that learn from previous experiences and hold vast amounts of information.

Computers are something that can constantly evolve and improve different areas of our world. Almost everything in today’s society is powered by something related to computer programming or computer hardware. We even walk around with mini computers in our hands every day attached to the small screen.

There will always be somewhere and some way you can take the research you have done and apply it. Each individual has something to contribute to our progression of computer intelligence (or in any area of study). I would like to learn enough to be able to apply my knowledge to my colleagues and work as a team in pursuit of a better, faster and more efficient computer technology.

June 2015: AHC MESA/STEM students along with students from the Cal Poly’s College of Engineering tour Raytheon Company in Santa Barbara.
The Journey is Fun
by Ouang Doan, Computer Science, former AHC MESA student, Cal Poly fall 2015 transfer student

Looking back at my high school years I realize I did not know what I wanted to do with my future. I just wanted to graduate and start life. I chose to enroll at Allan Hancock College when I was still in high school because my best friend I grew up with who was one year older was graduating from high school earlier than me and I wanted to graduate with her. In the fall of my junior year in high school I doubled up my academic classes in order to graduate a year early. I met my goal at the time, but when I finally graduated high school I wasn’t prepared on what I should do next. I continued to go to Hancock not yet knowing what major was right for me. My parents advised me to focus my future in the medical field like my older brother. Not wanting to disappoint my parents, I decided to pursue that idea for a year and in the process of doing so I ended up becoming a Certified Nurse's Assistant. Later, I acquired a job in a nursing home where I helped the elderly. Working there for six months confirmed that this field was not the one for me. I finally realized that the future my parents set out for me was not one that I wanted. I’ve always loved working with computers so I reevaluated my plan to pursue a computer science degree. Since working toward that goal it hasn’t been easy. I was faced with many challenges along the way. One of the challenges was joining the dance program. I love to dance so I joined the dance program for a semester and on top of that I was going to school full time. It was a huge time commitment, and I was not able to find a balance in my academics and dancing, so my grades suffered. When it was time to apply for transfer, my GPA was not competitive enough for acceptance to different universities. It was hard getting rejected, but I got up and worked extra hard the following year. I found out about the MESA program my last year at Hancock. I did not know what to expect, but by the end of my last year, MESA helped me make new friends that I now consider family and they all helped me get into Cal Poly when I reapplied. I am currently attending classes at Cal Poly. Coming from a semester system to a quarter system, it is going to take some time to get adjusted. I underestimated the quarter system when I heard other students telling me about their experiences, but Cal Poly has been a fun new challenge so far. The students are friendly, the campus is beautiful, and overall the environment here is awesome. I don’t regret anything I have done to get where I am, but my journey is far from done.

University Transfer Bound? Make sure to...

- Meet with a counselor each semester
- Develop a Student Educational Plan (SEP)
- Complete math and English requirements right away
- Use tutoring and balance your course load
- Get leadership experience through clubs and community service
- Use ASSIST. org
- Use UTC and MESA services (field trips, university representative visits, workshops)
- Decide on transfer destinations (CSU, UC, other)
- Seek Transfer Admission Guarantees (TAG)
- Complete the admissions application
- Apply for financial aid and scholarships consistently
- Do NOT wait to the last minute to take care of business
- Stay ahead of the game and be proactive
- Build your success network and maintain integrity
I Made the Right Choice for Me
by Israel Castillo, MESA Student, Electrical Engineering

I struggled academically in high school. I never felt the need to put too much effort into my school work. However, I always had this unwavering force pushing me to take higher level math courses at Allan Hancock College through the College NOW! program. I had no idea then how much of an impact Hancock would have on me down the road.

I began as a full-time student last fall where I quickly got involved with MESA and its resources. It is here through the help of the great counselors offered to STEM students, and my own strong determination, that I managed to be able to complete the transfer requirements for my major within two years. While at Hancock, I learned that I excel taking tougher courses, something I never experienced while in high school.

In high school, I was always encouraged to go straight to a four-year university (regardless of which one) instead of going to a community college first. Personally, I felt that a community college like Hancock would benefit me more. I am grateful that I chose to enroll at Hancock, and I am reminded by that fact every day I walk into the MESA Center and see familiar faces. I wouldn’t have met all the great people in my life if I hadn’t become a MESA student at Allan Hancock College.

March 2015: AHC MESA/STEM students visit Western Digital in Irvine and tour CSULA the following day.
Finding What the World Has to Offer  
by Christian Diaz, MESA Student, Computer Science/Economics

I have been very indecisive in my college career. I went from a chemical engineering major, trying to provide energy to the masses. Then I switched to math for teaching; I really liked the idea of talking about math all day and filling young minds with new ideas (the vacation time didn’t sound so bad either). Now I am a computer science major and contemplating a minor in economics, mainly because I love how it describes human behavior using mathematics. I have always been good at math and sciences, and so I knew I had to join MESA.

MESA has been there since the day that I arrived on campus. Whenever I needed somewhere to do my homework when my home was too loud, MESA was there. If I needed to print something 10 minutes before class, MESA was there. When I decided to switch my major for the third time, MESA was there helping me set up a course outline for the next upcoming semester. If you are a STEM major, join MESA!

In the not-so-distant future I would like to be receiving my bachelor’s degree from Cal Poly. After that, I want to earn a master’s degree at a different university; the dream would be UCSD or UC Berkeley. I have lived in Santa Maria my whole life, so it is easy to see why I would like to go out and see what the world has to offer.

I come from a lower middle class family, my mother is a small business owner and my father is a field worker. I get my love from economics from my mother. My father likes numbers, but he didn’t go past the 3rd grade. They came to the United States about 23 years ago. I am now 21. I have two brothers and one sister. My sister, Estela Alejandre Diaz, had seizures since a very young age. Later on, after her 15th birthday, a UCLA research doctor diagnosed her with a brain tumor; thankfully he was able to operate without any side effects. One of my brothers and my sister attempted to go through Hancock but life gave them kids, so they went into the job market. So I, being the youngest, will be the first in my family with an actual degree.

Are you serious about improving your study skills? Make sure to…

- For each hour you spend in a STEM class, spend three hours studying outside of class
- Start on assignments the day they are assigned
- Take reading seriously. The stronger reading skills you have, the easier it will be for you to do well in class; take notes while you read
- Make use of the tutorial services. Treat tutoring like a vitamin (done regularly for academic health), not an aspirin (only when you are in academic pain)
- Go to the Math and Writing Centers for additional help if you’re enrolled in a math or English classes.
- Get to know your classmates! Form study groups.
- Visit your instructors during their office hours. You can get questions answered and they will get to know you better and know you are concerned about the class
- Use effective time management skills. Allow for enough study time and work minimally, if at all.
- Check out the workshops offered on campus and attend them
- Check out the Learning Assistance Program and find out if they can help you succeed. If you are diagnosed with a learning disability, they offer many services that may make a difference in your educational journey
- Incorporate preview and review time into your schedule for each of your classes and do it consistently
- Reward yourself when you do well on a tough assignment, ace a test, study more than you planned, etc. Let your friends and family know about how awesome you’re doing! Get all the encouragement you can!
- If you did not receive the grade you desired, take a serious look at your study habits and seek help in developing better ones
Taking It Up a Notch
by Catalina Ramirez, MESA Student, Food Science

In my infancy, I learned the seasons not by traditional way through the observations of the heat from summer and the cold winds of winter, but by the working schedule of my parents. I had learned the seasons as the vineyard season, followed by el azadon or the clearing, the planting, the harvest, the packaging and lastly the rainy season. I was born into a family of campesinos or field workers, who have toiled the lands in rural Arroyo Grande for almost 40 years. At a young age, I only had the opportunity to spend time with my family when a meal was being prepared.

“I cooked with my mother when I was younger” was a stereotypical statement that a chef or someone in the food industry will make when they are asked why they entered the discipline. For me it follows the same root only with the exception of my first experience occurred at the age of four. It involved my eyes being physically introduced to capsaicin (the active ingredient that makes a habanero spicy), while preparing homemade salsa with my mother. At the age of 12, I wanted to be a world renowned chef. Over the years, the required general education science classes and the lazy afternoons of my early youth watching Alton Brown’s Good Eats have guided me into the direction of food science.

Food science offers me the opportunity to better understand and explain what is happening to food while it is being prepared. Take for example the making of vinaigrette. Vinaigrettes are composed of three parts oil, one part vinegar and seasonings to taste. Oil has a lower density than water and is also nonpolar so it will float over water, while vinegar has higher density than water and is polar so it will dissolve into water. To create the dressing, physics is applied by using a whisk or a blender to create a temporary emulsion or even blend of both. Not only is the application of chemistry, physics, and biology of food is interesting, what is equally interesting is that as a species, we have shaped our world by producing foods that have a higher nutritional value. During times of famine we fortified foods that have lowered the risk of contracting illness caused from vitamin deficiency and have increased the life expectancy of those who have impacted immune systems, all the while making our food more palatable.

My academic goal thus far is to receive a bachelor’s degree in food science. From there, I would like to continue on to a master’s degree, and I am currently exploring the idea of pursuing a doctorate. When I started college, my only educational goal was to receive my bachelor’s, but since I have joined MESA last year, I have gained a deeper sense of self-confidence that made me think “I can go further.”

CHECK THIS OUT

Allan Hancock College
Science & Engineering Club

The club’s primary purpose is to connect with industry professionals and expand students’ education. As club members, students promote camaraderie and communication within the science and engineering departments by organizing lectures, peer advising, fundraisers, ASBG participation and field trips.

Interested in participating? Visit the STEM or MESA Center for more information.
Changing Lives
by Gabriel Nava, MESA Student, Computer Science

The Sierra Madre del Sur is in the most scenic, biodiverse, and picturesque mountain ranges of Mexico. I was born there amongst fields of pears, peaches, and plums. My father was a goldsmith and farmer, albeit one with a very controlling and conservative attitude. My eldest brother, Tomas, perhaps having grown tired of toiling in the fields from sun-up to sun-down from the time he finished middle school, moved to the United States in his early twenties, when I was five years old. My father didn’t agree with these plans. He followed Tomas in an attempt bring him back home, leaving my mother and siblings to care for ourselves. My father didn’t bring back my brother, but instead delayed his own return indefinitely.

Within three years, my brother had opened an auto repair shop in Atlanta. By the time I was nine, he’d saved enough money to move the rest of my family to the United States. On our arrival he provided us with shelter, enrolled us in school, and helped us acclimate to the new culture. He then opened up a grocery store to be run by my sisters. Unfortunately, when I was 14, my brother passed away in a car accident in Mexico. My father, who we’d reunited with since, returned to Mexico to deal with the burial. My eldest sisters and mother were left once again with the financial responsibilities brought by bills and a mortgage.

As more time passes since my brother’s passing, I realize how blessed I was to have had him as a brother. Thanks to the sacrifices he made, my entire family owes our future to him. He wanted us to be happy, successful and to live the American dream and he gave up his youth to accomplish that. He’s left me a legacy and given me a purpose: to go the extra mile when trying to achieve my goals, while also helping others along the way.

I’d always planned to attend college. In my family, continuing one’s education is not as highly regarded as helping out financially. My mother never graduated high school and my father never completed college. None of my other siblings are attending college. I know that changing this family trend is going to be extremely difficult. My largest obstacle in completing my education has been financial. Federal aid is out of my reach. Having completed high school in Georgia wasn’t helpful either, as I had to pay out-of-state tuition. Being a DREAMer, I was unable to attend any of the top five public universities. After high school, I freelanced in web development and worked at a local immigration office to save for my first year of college. That time dragged on very slowly. It was tough seeing everyone else moving on. All I wanted was an education.

It’s been two years since I moved to California with nothing but a small amount of savings. Using my brother’s courage as motivation, I had a lot of hope that things would go well. It was a tough start and initially I didn’t have a car or steady job. Fortunately since, a part-time internship has turned into a position as a junior software engineer at a local telco company. I’ve been helping build communication software for organizations like NASA and ULA. I’ve used skills I learned there and at Hancock to mentor a local high school robotics team in software development. I’ve also become a MESA member, where I met some of the most ambitious and hard-working students. Many of them were also part of the Hancock Mentorship Program. Lastly, I was a participant in the Student Math League, where I placed first amongst the other Hancock competitors.

I want to receive my family’s first bachelor’s degree and become an entrepreneur like my brother. I want to gain as much experience in software development and computer science so I can one day create my own startup developing software. I want to build software that will change people’s lives.
Scholarship Tips!

- Explore all your options
- Never pay money for scholarship information
- Consider local opportunities
- Don’t waste time on scholarships clearly not eligible for
- Take every application process seriously
- Be prepared to devote TIME to your search and applying
- Fill out applications and forms clearly and accurately/read and follow the directions exactly how they are stated
- Seek help
- Think positively about yourself and the process
- Select proper people to write letters of recommendation and give them amply time to complete the task
- Abide by deadlines and requirements (note all the needed components to apply)
- Follow up and send thank you letters
- Be persistent and consistent; don’t ever quit!

May 2015: MESA Student awarded AHC Foundation scholarships.
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](http://www.hancockcollege.edu); click on MESA under Quick Links.

---

**Fall 2015 STEM/MESA/Bridges Activities**

- **Sept. 2** Bulldog Bow WOW (9:30am-1:30pm; Santa Maria Campus Commons Area)
- **Sept. 4** STEM: TAG! You’re In (1:30pm-3:00pm; W-23)
- **Sept. 9** How to Have Your Best Semester Yet: Time/Stress Management & Study Skills (5:30-6:30pm; W-31)
- **Oct. 7** Scholarship Strategies for STEM Students (5:30-6:30pm; W-31)
- **Oct. 23** Landing a STEM Internship! *Employability Emphasis: Interpersonal Skills* (1:30pm-2:30pm; G106B)
- **Nov. 7** UCSB Graduate Student forum. Sign up in the MESA Center ext. 3446
- **Nov. 13** Bridges to the Baccalaureate Fall Symposium. (1:30-3:00pm; G106)
- **Nov. 13** Professional Networking Social Media. *Employability Emphasis: Communication Skills* (9:45-10:45am; A403)
- **Nov. 20** Resume Development. *Employability Emphasis: Beyond Qualifications & Experience* (1:30-2:30pm; G106B)
- **Dec. 4** Cal Poly, San Luis Obispo Campus Tour. For more information, please contact STEM Center at ext. 3557.
- **Dec. 15** Central Coast Industry Tour. For more information, contact the STEM or MESA Center at ext. 3557 or ext. 3446

---

**Using Degree Works! Your Education Planning Tool**

**August-September**— Degree Works Software Workshop: Register online at www.hancockcollege.edu/degreeworks

**UC/CSU Application Workshops**

- **Oct. 2** UC/CSU Application Workshop (9:45-10:45am; W-31)
- **Oct. 14** UC/CSU Application Workshop (5:30-6:30pm; W-31)
- **Nov. 6** UC/CSU Application Workshop (1:30-2:30pm; W-31)
- **Nov. 19** UC/CSU Application Workshop (5:30-6:30pm; W-18)