Endeavour Encounters

by Christine Reed, MESA Counselor/Coordinator

Many of you may remember the breathtaking images on October 16, 2012, as the space shuttle Endeavour made its way through the streets of Los Angeles traveling 12 miles from the airport through Inglewood to rest at the California Science Center in Exposition Park. I, for one, was in awe while at a conference at UCSB we paused for a moment to look up in the sky as this gorgeous monument of US space history flew overhead. Mesmerized by its beauty and what it represented to me as an American, I was instantly inspired to give our students the opportunity to experience it. So on March 20-21, 2013, MESA and STEM students alike hit the road to LA; our first stop, the California Science Center! We spent time touring the center’s exhibits including displays on biology, technology, and ecology; seeing the Endeavor up close and discovering some of the science behind this amazing space vehicle; and watching Hubble 3D at the center’s state-of-the-art IMAX theatre. Walking into the Samuel Oschin Pavilion where the Endeavour is housed was powerful. Watching the students’ eyes and the expressions on their faces as they gazed at this remarkably engineered machine defined what being an educator is about. Not only did the exhibit allow us to view the awesome space shuttle, the room was designed to educate the public about the history of space travel in the United States. Our students were visibly inspired!

The next stop on our March trip was UCLA. We were graciously hosted by the Center for Excellence in Engineering and Diversity at UCLA. Students heard presentations on UCLA admissions and financial aid as well as had the opportunity to tour labs and view student projects. Current UCLA engineering students lead our tours and provided wonderful advice for aspiring STEM transfer students. We concluded our trip feeling rejuvenated, motivated, and with a deeper respect for our scientific achievements as individuals and as a nation.

“AFFLICTION COMES TO US, NOT TO MAKE US SAD BUT SOBER; NOT TO MAKE US SORRY BUT WISE.”

HENRY WARD BEECHER
My name is Joshua Rivas and this is my fourth year attending Allan Hancock College. Once my grandpa passed, my priorities became mixed up. After barely graduating high school and dropping all my classes my first semester here, I knew I was letting him down and I had to get my life straight. Since then I have accumulated a GPA of 3.65 and I’m applying to transfer this semester. I have high hopes of being accepted into Cal Poly to earn my bachelor’s degree in computer science. I wish to stay close to home and family because, though school is important, my family will always be on top. My grandpa has passed away but he is my inspiration to succeed. He was able to hold a family of nine children and countless grandchildren together while still learning as much as he could and working hard. I know the responsibility of providing for my family isn’t upon me right now but I still try to help them as much as I can.

After acquiring a bachelor’s degree in computer science, I’m looking to earn a master’s degree as well. Companies I’m looking to work for such as Google, Intel, or Cisco do not require a master’s degree for most software engineering positions, but last summer semester I had the idea of being a teacher later on in my life. “I want you to be out there because you speak as a leader and people can relate to you. I want you to teach.” After giving a speech in class, my instructor shared those words with me and they have been in my mind ever since then. If I do become a teacher later in my life, I want to learn as much as I can in order to help students as best as I can.

Over the past two years I have worked at Costco for seasonal. This has allowed me to help my family with the expenses of living as well as helping pay for my own books and school supplies. However with the addition of my new niece, my father is struggling to help my brother raise her while my brother is pursuing his master’s degree. I look to help my brother as well as my father with these costs by working a small amount out of the year. I also plan to put some funds in savings and apply them to my future university’s tuition. I have applied to Costco again for this year’s seasonal and am awaiting a response. Although I am enrolled in seventeen units, I am confident in my time managing skills to be able to assist my family financially as well as retain my GPA.

In my spare time, I enjoy being in the MESA center helping other students with classes I have already passed. During the past two years in MESA I have helped fellow students with calculus as well as computer science. Last year I participated in the California Connects program, offered by MESA, to help teach digital literacy and internet usage to people of hardship or without accessibility. MESA has kept me on track with academics and has pushed me to help others in the community.

My ultimate goal is to follow in my grandpa’s footsteps. However his footsteps consist of achieving many goals. My goal is to succeed in academics in order to obtain a career in advancing technology. Through this career I will work hard to start a family as well as pay back the one I already have. With the knowledge I have acquired I look to share it with my children, grandchildren, and possibly students. I want to leave my children with the same footsteps my grandpa left me. Not until then will I have reached my goal.
Club Happenings

by Chris Welch, MESA/STEM Club President

The MESA/STEM Club provides opportunities for any student to become involved in organizing events, leading committees, and community service activities. MESA/STEM Club members organize fundraiser and community service events. Fundraisers are geared toward funding the club’s efforts as well as providing scholarships for its active members. This year MESA/STEM Club began this semester with a name change; previously called “MESA Club.” We did this in order to more effectively communicate that the club is open to all STEM students, not just MESA. The first event was a social movie night at which club members watched movies and internet videos. Club members later organized a car wash fundraiser and had great success, raising $250. MESA/STEM Club is currently organizing a coin drive for children with incarcerated parents. In addition, MESA/STEM Club has a BBQ in the works for the spring semester. Many of the members are in the MESA program and the club provides an excellent outlet for these students to become involved in their community through a variety of community service opportunities and leadership activities.

It’s Our Journey...Together

by Matthew Jimenez, MESA Student, Software Engineering

Someone once told me that we must cherish and enjoy the journey not the destination. For me, my destination is transferring to Cal Poly, San Luis Obispo, to attain a bachelor’s degree in software engineering. The journey to get there has been stressful, but when I joined MESA I found an atmosphere of very intelligent students, in which I have made friendships that are strengthened by our commitment to success.

I am 31 years old and work full time in order to support my growing family. My wife and I have a 2 ½ year old son, Dominic, and we are expecting our second son in May of 2014. Time management is vital to my success, and it has taken a while to find the right “recipe” of balance between school, work and family. MESA has given me important resources in the form of tutoring, access to potential internships, and help with the cost of books. My journey is constantly evolving as my skillset in my programming heightens and the job possibilities become endless. My family supports me unconditionally and has given me a foundation to excel, and I could not be successful without them, so this journey is my families’ journey as well as mine.
Opportunities Abound
by Ivan Lucatero, MESA Transfer Student, Cal Poly SLO, Aerospace Engineering

Ever since I watched an episode of “Mythbusters” on flow visualization in high school, I knew I wanted to become aerospace engineer. Little did I know that I would later be working with the aerospace engineer featured in the show. I excelled in math and science in school, so engineering was the right fit and I just had to figure out how to get it done. Throughout high school, I took courses at Allan Hancock College (AHC), and graduated as my high school valedictorian. I then attended AHC in search of a smooth transition to a university.

I was able to take my lower division engineering courses and form a great relationship with my professors. While at AHC, I received multiple scholarships from the Allan Hancock Foundation, Santa Barbara Foundation, and MESA-NSF Scholarship. After two years, I had completed all my courses and was ready to transfer to a university. I had also been accepted to the Internship in Nanosystems Science, Engineering and Technology (INSET) program at the University of California at Santa Barbara. I was able to conduct research along a mechanical engineering graduate student which opened up the opportunities to future internships.

I then attended California Polytechnic State University, San Luis Obispo, to pursue an aerospace engineering degree. After just one year at Cal Poly, I was accepted into one of the most prestigious internship programs that NASA offers, the Aeronautics Academy. It was an immersive experience into the aerospace industry, where as a team we had the opportunity to present at the NASA Headquarters in Washington, D.C. to the Associative Administrator for the Aeronautics Research Mission Directorate, Dr. Jaiwon Shin, and NASA Director, Charles Bolden. The research I conducted was at the NASA Ames Research Center at Moffet Field, CA, where I was working in the Experimental AeroPhysics branch. This division works heavily with wind tunnels, and the director, Rabindra Mehta, is the world expert on sports ball aerodynamics. I later learned that this was the same person that was featured in the “Mythbuster’s” episode I had seen in high school. I had accomplished my dream, which was to work for NASA.

Since then, I have had another internship experience with Lockheed Martin Space Systems Company in Sunnyvale. This was amazing because they are one of the largest defense contractors in the nation. Through that experience, I was able to see what the corporate world is like in the aerospace industry. I have also been very involved in the clubs at Cal Poly and most recently served as the President of the Society of Hispanic Professional Engineers. Under my leadership, SHPE sponsored a Solar Panel Installation on a low income home, established a SHPE Jr. Chapter at Pioneer Valley High School, and was named the Cal Poly Club of the year 2012-2013. All these experiences have been possible through my hard work in school and the generosity of people providing the scholarship I have received. At Cal Poly, I have also received multiple scholarships such as, David Cantu, XEROX, Paisanos Scholarship.

The Expectations of a College Student

• Don’t pile it on...avoid taking on too much
• Class time must be the top priority
• Complete your assignments...competently and timely
• Don’t come late to class or leave early
• Dress like a professional student
• Ask questions!
• Come prepared!
• Learn to work in groups
• Take charge and responsibility
• Engage in your learning!

Source: FOCUS on College and Career Success (Staley and Staley)
A new initiative with the Cal Poly Counseling and Guidance graduate program has made it possible for STEM/MESA students to receive individual support and assistance through a career development process. Graduate students are selected to serve as career mentors for a small group of students who are interested in participating in the program. Mentors engage STEM/MESA students in activities and advisement sessions designed to assist them in exploring career options and strategies, setting goals, discussing academic and personal issues related to career choices, and addressing university transition success approaches. Interested STEM/MESA students are matched with a mentor and receive a $50 award for completing the semester-long experience. At the conclusion of the program, students have established an Individual Career Development Plan. For more information or to recommend a student to the program, please feel free to contact the staff of the MESA Program or STEM Center.

It has taken me a long time to stand where I am standing today. Being a full-time student with a full-time job while juggling life’s chores has been a real challenge during many semesters. This spring, over four years later, I will have completed all the requirements for my associate degree and hopefully my transfer to actuarial sciences.

I finished high school at the early age of 15 and got accepted into the business program at a University in Peru, however life had other plans for me. A year and a half away from graduation, I decided to leave my family and move to the U.S. in search of whom I really was and what I really wanted to do. The years I lived in South Florida I worked up to three part-time jobs (including a job as an ESL tutor, which was my favorite), not leaving me enough time to go back to school for a few years. At that time, I met my now-husband, Daniel, who had just accepted a job in California. Eight months later, we got married and I moved to the Central Coast.

One day, while at home, I found out about a transfer workshop that was being offered at Allan Hancock College in Santa Maria, so I decided to attend. All the information provided was clear and very motivating, but I still had many questions regarding my educational status. The person presenting seemed to have all the answers, she had a real interest on each one of our different stories and was more than willing to help us reach our goals, no matter how crazy (like mine) they sounded. I made an appointment with her ... little did she know she was going to become my school guardian angel, and I would follow her to MESA after she left the University Transfer Center. Christine has guided me throughout this path, even when I felt things were getting too overwhelming, she always has had the words to help me keep going.

Being a student at Hancock and particularly being part of MESA, has been a great experience. I have been blessed with instructors that LOVE what they do and are eager to share their knowledge, classmates who know the value of an
education and even though many times we did not have much in common – mostly due to the age difference – they still made me part of their team.

Yes, it has been a long time and a lot of sacrifices were made. I am not going to lie, in the past when I would think about how long it would take to get where I am today, I felt like leaving it all. Nevertheless, I had the constant support from my family (especially Daniel), my instructors and friends. Today I am ready to apply for transfer.

The STEM Internship Program...We’re Full STEM Ahead!

by Emily Smith, Internship Specialist

The Allan Hancock College STEM (Science, Technology, Engineering & Math) Internship Program is in its inaugural year! We are working hard to establish partnerships with local industry to provide real world work experiences for our students.

We have all been there – making decisions about which career path to choose can be a source of great anxiety, especially in tough economic times like these. Having someone supporting you, coaching you through and providing practical advice without judgment can make all the difference in the world.

Internships are a win-win for both the students and companies providing the internships. They offer qualified interns the opportunity to get first-hand experience in professions in which they are majoring or complementary to their major. It is an opportunity to help students connect, in some cases, for the first time what they are learning in the classroom to the kinds of work they will be doing once they graduate. Additionally, the program provides participating businesses a pipeline for diverse entry level technical employees, while at the same time giving back to the community.

Did you know that among wealthy nations, the United States ranked 23rd in science and 31st in math in standardized tests? We rank 27th in college graduates with degrees in science and math. In addition, women represent 50 percent of the American population and capacity for innovation, but represent only 24 percent of the STEM workforce, according to the Association for Women in Science.

It is my hope, as the STEM Internship Specialist, that we at Allan Hancock College do what we can to participate in the national goal of increasing STEM majors by 10 percent. We can do this by supporting programs that offer STEM students an opportunity to capture their interest and motivate them early in their college career.

By participating as an employer you help keep creativity local, and in doing so, increase the local demand for more and more skilled labor. By participating as a student, you will become connected to a multitude of people within your desired industry.

Students, we know that you want and need real work experience! You want to work and learn. By participating as a student in the STEM internship program, you will have the opportunity to gain work experience and develop the employment-related skills (soft skills) needed to land and keep a job in the future.

In my eSTEMation, working together, we can accomplish a lot!

For more information regarding the STEM Internship Program, please contact Emily Smith at (805) 922-6966 ext. 3820 or esmith@hancockcollege.edu
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.

"MESA sets high standards while providing the academic tools needed for helping students to succeed. This deceptively simple approach is effective and has produced remarkable results."

Henry T. Yang, Chancellor, UC Santa Barbara

Visit our website at [www.hancockcollege.edu](http://www.hancockcollege.edu); click on MESA under Quick Links

**Fall 2013 STEM/MESA Bridges Activities**

- **Sept. 5** — STEM: TAG! You’re In (12:45-1:45pm; M-201)
- **Sept. 17** — STEM: TAG! You’re In (12:45-1:45 pm; M-201)
- **Sept. 19** — How to Have Your Best Semester Yet: Time Management & Study Skills (12:45-1:45pm; M-205)
- **Oct. 8** — STEM Scholarship Exploration (12:45-1:45pm; W-18)
- **Oct. 24** — Landing a STEM Internship! (12:45-1:45pm; M-205)
- **Nov. 1** — Bridges to the Baccalaureate Fall Symposium (1:00-3:00pm; M-310)
- **Nov. 5** — Writing Competitive College Admissions Essays for STEM Majors (12:45-1:45pm; M-311)
- **Dec. 3** — Managing Stress: Finals are Coming! (12:45-1:45pm; W-18)
- **Dec. 4** — STEM Student & Staff Winter Celebration! (11:30am-1:30pm; STEM Center)
- **Dec. 12**— Dec. 13 — Bay Area University and Industry Exploration Trip!

**CSU Application Workshops**

- **Oct. 10** — CSU Application Workshop (12:45-1:45 pm; M-201)
- **Oct. 23** — CSU Application Workshop (6:00-7:00 pm; M-106)
- **Oct. 29** — CSU Application Workshop (12:45-1:45 pm; M-201)

**UC/CSU Application Workshops**

- **Nov. 6** — UC/CSU Application Workshop (6:00-7:30 pm; M-106)
- **Nov. 14** — UC/CSU Application Workshop (12:45-2:15 pm; M-201)
- **Nov. 19** — UC/CSU Application Workshop (12:45-2:15 pm; M-201)
- **Nov. 26** — UC/CSU Application Workshop (12:45-2:15 pm; M-201)