

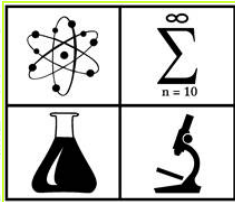
Fall 2006
El Camino College

MESA NEWSLETTER



Volume 6, Issue 1

2005-2006 MESA Transfer Student Highlights



El Camino College
MESA Program
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Director: Arturo Hernandez

MESA CENTER HOURS

Mon-Thur 8am-8pm
Friday 8am-4pm
Saturday 9am-3pm
Sunday 12-6pm

Inside Newsletter:

- MESA Gets Another Grant!
 - UC Irvine Internship
 - Academic Counseling
 - MESA Stipend Recipients
- Look inside for more details!**

NAME	MAJOR	UNIVERSITY
Ana T. Orellana	Aerospace Engineering	CSU Long Beach
Anusha Prabhakar	Aerospace Engineering	CSU Long Beach
Merrell Tucker	Astronomy	University of Hawaii at Hilo
Gelareh Eslamian	Biomedical Engineering	UC Irvine
Sanaz Assadi	Biomedical Engineering	UC Irvine
Thomas Onyia	Biology	UCLA
Makishia Daniels	Biology	CSU Long Beach
Nnenne Blunt	Biology	University of Colorado
Kelechi Azubuikwe	Biology	UCLA
Saleha Arif	Biology	UC Irvine
Sandy Chavez	Biology	Marquette University
Onyemachi Egbuta	Biochemistry	UCLA
Valerie Chan	Biochemistry	UCLA
Zahra Ilkhani	Chemistry	UC Berkeley
Mackson Ncube	Chemistry	UCLA
Caesar Munera	Chemical Engineering	Cal Poly Pomona
Yossah Konlani	Civil Engineering	CSU Long Beach
Jimmy Joe	Electrical Engineering	USC
Joel Garcia	Electrical Engineering	CSU Long Beach
Jeffrey Liu	Electrical Engineering	UCLA
Gabriel Ferrer	Electrical Engineering	Cal Poly Pomona
Juwarat Kadiri	Genetics	UC Berkeley
Brian Nagy	Geography	CSU Long Beach
Amy Kai Lam Lee	Mathematics	CSU Long Beach
Joel Cowart	Mathematics	University of St. Mary (Kansas, U.S.A.)
Adriana Veliz	Math Education	CSU Long Beach
Oscar Perez	Mechanical Engineering	UCLA
Estuardo Iriarte	Mechanical Engineering	CSU Long Beach
Rolando V. Arevalo	Mechanical Engineering	Cal Poly Pomona
Daniel E. Aleman	Mechanical Engineering	CSU Long Beach
Armando Cabrera-Lemus	Mechanical Engineering	USC
Mario A. Lopez	Mechanical Engineering	UCLA
Marjan Mohajer	Mechanical Engineering	UC Irvine
Jeonghwan Yoon	Mechanical Engineering	UCLA
Marwan Azzam	Mechanical Engineering	UC San Diego
Jorge Hernandez	Mechanical Engineering	Cal Poly Pomona
Lisa Felix	Nursing	L.A. County School of Nursing
Monica Alvarez	Pre-Nursing	San Diego State University
Vanessa Ravel	Physiological Sciences	UCLA



Exemplary MESA Students in Spring 2006

Daryl Addison, aerospace engineering major, was part of the MESA Summer 2005 cohort. Since his membership with MESA, Daryl has demonstrated the willingness to succeed by actively utilizing the resources MESA makes available for all MESA students, and thus, was selected as one of the spring 2006 exemplary MESA students. In spring '06, Daryl was the recipient of two MESA stipends for his participation in the Academic Excellence Workshop (AEW) and final course grade of "A" in both Math 170 and Chemistry 4. In addition, Daryl participated in the MESA Leadership Retreat at the Happy Valley Conference Center in Santa Cruz, California, and recently participated in the summer 2006 Alliance for Minority Participation (AMP) program sponsored by CSU, Dominguez Hills.

Zahra Ilkhani, a chemistry major who recently transferred to UC Berkeley for fall '06, is distinguished as an exemplary MESA student. Zahra has been one of the most active and academically recognized students on campus. As part of the fall 2002 MESA cohort, Zahra maintained a 4.0 G.P.A. throughout her entire academic profile at El Camino College. Since her inception into the MESA program, Zahra attended and eventually served as a facilitator for MESA Academic Excellence Workshops in General Chemistry I & II and Organic Chemistry I & II. Before transferring to UC Berkeley for the fall, Zahra participated in the summer 2006 UCLA Summer Bridge Program to promote her research experience. She was recently awarded the Presidential Scholar Award from the Natural Sciences Division.

Quang Dao, a pre-med major, is part of the spring 2006 MESA cohort, and is distinguished as an exemplary MESA student because of his organization skills and hard work. Quang is one of the most organized MESA Students up to date; he was the first student to complete all the necessary updates for his MESA student file, and will serve as a MESA Program Assistant beginning fall '06. In terms of academics, Quang maintains a high academic profile with a strong G.P.A. Moreover, as a recognition of his commitment and hard work, Quang was recently the recipient of a MESA stipend for his participation in the spring '06 workshop and final course grade of "A" for Chemistry 4. We look forward to Quang's promising future accomplishments with MESA.

Spring 2006 MESA Leadership Retreat

In spring 2006, several MESA students were able to participate in the MESA Leadership Retreat at the Happy Valley Conference Center in Santa Cruz, California. This activity was a week-end-long development of leadership and teamwork skills, where students had the opportunity to share their experiences and goals with MESA students from other MESA programs throughout the state.

To make this activity possible, the leadership conference was scheduled during spring break to allow flexibility with student schedules. Travel, housing, and meal expenses were sponsored by MESA statewide. MESA students interested in participating in the leadership retreat for spring 2007 should notify the MESA director.

MESA student participants for this activity were:

Daryl Addison, Kelechi Azubuikwe, Daari Terrell, Makishia Daniels, Deborah Dauda, Sandra Lemire, and Thomas Onyia



MESA Leadership Retreat Participants for Spring 2006: (left to right) Terrel Darri, Thomas Onyia, Kelechi Azubuikwe, Deborah Dauda, Darryl Addison, Makishia Daniels, and Sandra Lemire.

MESA Student Experience

As an engineering student at El Camino College, joining the MESA program was perhaps the smartest decision I made in my two years of study there. MESA not only provided me with an environment designed to ensure success, but it also helped provide the tools necessary to achieve success. Prior to my joining the program, my college experience was a dull one, with little to no academic support. I also lacked student friends which are necessary for help in shared classes. Upon joining the MESA program during my second year of my studies, I noticed a sharp contrast in my attitude toward school. I no longer saw my classes as a burden, and I found myself spending more time at school than I otherwise would have. The MESA facility provided the hardware needed for my studies and I no longer had to go home to use a computer. By spending more time at school, I could dedicate more time to class work than I could at home. MESA also provided me with valuable skills by allowing me to attend the NTCC event in Orlando, Florida this past January. Here I learned the basics of interviewing, resume writing, and what employers look for in potential candidates for employment straight from the horse's mouth, so to speak. I recommend that any student in math, engineering, or science fields seriously consider joining a program like MESA, which is here to help and open opportunities for us that we often take for granted.

Oscar Perez
MESA Transfer Student
Mechanical Engineering Major





NSF MESA/CSEMS 2006 SCHOLARSHIP RECIPIENTS

The NSF MESA/CSEMS 2006 scholarship sponsors rising sophomores and transfer-ready MESA students in the fields of engineering, math, and computer science.

All of the following students have been awarded the transfer-ready scholarship! Congratulations MESA students!

OSCAR PEREZ \$9,375 ESTUARDO IRIARTE \$9,375 MIGUEL LIMA \$9,375
ANA T. ORELLANA \$9,375

MESA Student Research Participation

The following students took the initiative to participate in a research opportunity that provided experience in the field of study they are pursuing. Historically, students have received information about internship opportunities and applications via resources like the MESA Internship Handbook provided near the end of the fall semester, MESA Director networks with industry and universities, and ECC math and science faculty. Congratulations!

NAME	MAJOR	Stipend Awarded	RESEARCH LOCATION OR SCHOLARSHIP AWARD
Oscar Perez	Mechanical Engineering	\$4, 410	Loyola Marymount University (REU Summer Program)
Estuardo Iriarte	Mechanical Engineering	\$4,410	Loyola Marymount University (REU Summer Program)
Mario A. Lopez	Mechanical Engineering	\$1,000	JPLUS Award (Jet Propulsion Laboratory)
Zahra Ilkhani	Chemistry	\$2,700	UCLA Bridge Program
Kelechi Azubuiké	Biology	\$2,700	UCLA Bridge Program
Onyemachi Egbuta	Biochemistry	\$3,750	CSULA (REU Summer Program)
Ana T. Orellana	Aerospace Engineering	\$2,000	P.U.M.P. Program at CSU Northridge
Joel Garcia	Electrical Engineering	\$1,400	A-STAR Program at UC Irvine
Armando Cabrera	Mechanical Engineering	\$1,400	B-STAR Program at Chico State University
Salvador Montes	Civil Engineering	\$1,400	B-STAR Program at Chico State University

Spring/Summer 2006 AEW Stipend Recipients

The following MESA students received a stipend (amount next to name) for their participation in the Academic Excellence Workshops in Sp/Su 2006. In order to receive a stipend, MESA students need to participate in at least 40% of the workshops offered and achieve a grade of "B" or better in their course. Therefore, CONGRATULATIONS to the following students, for they have set an academic example among their peers and have successfully utilized the resources MESA makes available for student academic success:

Math 170

Daryl Addison **\$100**

Quang Dao **\$50**

Chemistry 1A

John Villaseñor **\$100**

Chemistry 4

Daryl Addison **\$100**

Quang Dao **\$100**

Chemistry 1B

Miguel Lima **\$50**

John Villaseñor **\$100**

Chemistry 7B

Saleha Arif **\$50**

Nnenne Blunt **\$100**

Valerie Chan **\$50**



Alliance for Minority Participation (AMP) Program

Sponsored by California State University, Dominguez Hills (CSUDH), the following students participated in a summer workshop at the CSUDH campus that provided emphasis in either Pre-Calculus or Calculus I course content. Each participant received a stipend of \$600 and a TI-89 Calculator for a \$25 charge.

Daryl Addison	Claudine E. Coria	Steve Hernandez	Mayra Ochoa
Michael Almeida	Hilda Gaytan	Javier A. Luna	Daniel Perez
Vanessa Cantu	Timothy Gramling	David C. Lopez	Michael Stone
Tameika Carey	Skyler Hall	Sonia Nocelotl	

A-STAR INTERNSHIP AT UC IRVINE

This summer '06, the MESA Director, Arturo Hernandez, served as one of the coordinators for the Advanced Science and Technologies Academies of Research (A-STAR) summer program held at UC, Irvine. The A-STAR program is designed as an extension of the Basic and Advanced Science and Technology Academies of Research Program (BA STAR) for advanced research. In this year's A-STAR program, students were selected from various MESA programs in community college campuses throughout California. The A-STAR program lasted from June 26 through July 29, and students participating in the research program received a stipend of \$1,400. Housing and meal expenses at UC Irvine during the duration of the research project were sponsored by the A-STAR program.

This year's A-STAR participants included Joel Garcia (El Camino College), Raul Benitez (Allan Hancock College), Angela Echeverri (Solano College), Bianca Rodriguez (Santa Ana College), Ariadna Ortiz (College of the Desert), Claudia Fernandez (Napa Valley College), Mapanda Mwela (Napa Valley College), Emmanuel Sanchez-Solorio (Napa Valley College), Alma Rubalcava (Ventura College), and Edgardo Jaurequi (Butte College).

The following abstract selection highlights a project in which Joel Garcia, one of our MESA students, participated!

General Purpose Amplifier

Joel Garcia, El Camino College, and Raul Benitez, Allan Hancock College
Department of Electrical Engineering and Computer Science
University of California, Irvine

ABSTRACT

The objective for this project is to design and build a general purpose amplifier that consists of a circuit board with power supply, front panel, and rack mount. Its main purpose is to amplify voltage signals as they come into the circuit board. This amplifier is then to be used in the laboratory for further research and testing. The amplifier was first tested on a breadboard design and proved to be useful. Schematics were then created and an ExpressPCB circuit design model was sent to the manufacturer to be made. A front panel was also created and a rack mount was also obtained. All parts were then fabricated and then tested. The general purpose amplifier will prove to be useful in amplifying voltage signals.

REFERENCES

Dr. John LaRue and Dr. Richard Nelson
Allen Kine, Project Mentor
Cathey, J Jimmie. Chapter 8 "Operational Amplifiers" Electronic Devices and Circuits. P. 121 July 24 2006.





MESA GETS ANOTHER GRANT!

Earlier in the spring 2006 semester, the MESA program was awarded a \$10,000 grant from the El Camino College Foundation in support of renovation efforts to promote the MESA program's expansion at El Camino College. MESA proudly recognizes that once again, under the auspices of Katie Gleason, Director of Resource Development, and the El Camino College Foundation, it has

been fortuitous in receiving a **\$10,000 grant from Northrop Grumman** to support the computer services available in the MESA Center. Now, more students will be able to take advantage of the computer resources it makes available for student success! This opportunity is another great stepping stone for MESA to continue striving for student academic excellence and achieve-

ment. MESA would like to thank the invaluable support of Katie Gleason and the El Camino College Foundation, for they have seen the accomplishments MESA and its students have achieved at and beyond El Camino College, and are helping MESA continue to grow as a community of learners, and a networking center.

MESA SUPPORT SYSTEM

SUPERVISING DEANS

Barbara Perez, Dean of Natural Sciences
Don Goldberg, Dean of Mathematical Sciences

ACADEMIC COUNSELORS

Kenneth Key
Madeleine Carteron

SPECIAL ASSISTANCE

Donna Post, Computer Specialist
Katie Gleason, Director of Development

Academic Excellence Workshop Faculty Support

CHEMISTRY

Julie Stewart
Jean Shankweiler
Wade Killingsworth
Dr. Bob McLeod
Kamran Golestaneh
Irvin Drew
Amy Grant

MATHEMATICS

Kristine Numrich Paul Yun
Susan Taylor Bob Lewis
Jeffrey Cohen Ralph Taylor
Jack Veder Oussama Safadi
Aban Seyedin Allan Bollinger
Jill Evensizer David Westberg
Gregory Fry Leonard Wapner
Jackie Sims Paul Wozniak
Allen Sampson Lijun Wang

PHYSICS

Eyal Goldmann
Donald Faulhaber
Leon Leonardo
Norman Kadomoto
Susana Prieto
Richard W. Slocum
Michael Van Biezen
David Vakil





LMU Research Experience

The Research Experience for Undergraduates Program at Loyola Marymount University far surpassed all of my expectations. I never thought I would be exposed to so many aspects of material science and mechanical engineering. During the first week of the program, we learned the basics of the different phases of metals, and the differences in applications between the metals. This intensive lecture was followed by an exam, and we were subsequently assigned to our teams and project. Each team was made up of 4 students which would be performing all the tests required of their project and responsible for the analysis of this data. My particular project dealt with the effects of hydrogen that enters steel through manufacturing processes, such as welding and plating. We learned how hydrogen makes the steel weaker, and how to try to reverse these effects. This study required a lot of creativity in interpreting the data, being able to display them in graphs, and draw conclusions and recommendations for the industry facing this problem. All of the projects require a detailed final report which has a high probability of being published due to its groundbreaking findings. Overall, the entire experience was an intensive yet rewarding experience which I would recommend to anyone.

Oscar Perez

MESA Transfer Student

Mechanical Engineering Major

LMU Presentation Day:

(left to right) ECC MESA student's Oscar Perez, and Estuardo Iriarte, accompanied by Arturo Hernandez, MESA Director.



SHPE/NTCC Conference Participant

The 28th annual SHPE NTTCC (Society of Hispanic Professional Engineers National Technical & Career Conference) for 2006 was held at the Disney's Coronado Springs Resort in Orlando, Florida. This event allowed several MESA Students/SHPE members the opportunity to engage in workshops, panel discussions among other activities.

Let's hear what one of the SHPE/NTCC Participants had to say about this opportunity:

From January 4 through January 9, 2006 I was part of the MESA/SHPE group that participated at the 2006 National Technical Career Conference at Orlando, Florida. There are no words to describe what I saw at that conference. Thousands of SHPE students showed up; not only Hispanic students, but also many students from different ethnicity and background. So many panels were going on, which made it hard to attend all of them. I personally had the chance to attend to six panels. There was so much good information that you could absorb. My favorite part of the event was the banquet because we had so many amazing guest speakers that are involved with SHPE, and had the opportunity to hear what a great job some SHPE members have done and keep doing for us. There was also many prizes given to so many schools for participating in academic competitions; some random prizes were given for participating at different panels. Afterward, we had the big fair and the interviews with the seniors and juniors by so many big corporations and companies. People, you have to be there to experience what I experienced. There is more to learn about what is going on out of school, and I encourage all of you to be a part of upcoming conferences.

Yossah Konlani

MESA Transfer Student

Civil Engineering Major

UCLA Summer Bridge Intern Message: Zahra Ilkhani

I heard about the UCLA Bridge Program from Dr. Jean Shankweiler, a chemistry professor at El Camino College who supports the MESA program. The UCLA Bridge Program directors were Dr. Richard L. Weiss and Mrs. Laina Long; they are both extremely helpful in so many ways. The program is designed to get students involved in research. Dr. Weiss tried very hard to find a research lab for each student that matched their interest. For example, I was most interested in Organic Chemistry, and the lab where I conducted research focused on computational work on organic molecules. The program is great for students transferring to UCLA, and there is even a scholarship specifically for bridge students transferring to UCLA. Through the program, I became familiar with the programs and opportunities available to undergraduates interested in research at four year institutions. Dr. Weiss has also referred me to a few people at UC Berkeley, which I will attend beginning fall 2006, who work with undergraduate students to help them get involved in research. I had a great experience at the UCLA Bridge Program this summer, and I recommend this opportunity for any student interested!

Zahra Ilkhani

MESA Transfer Student

Chemistry Major





THE DEANS

Welcome Back–

Now that summer is over and you had some time to recharge, it is time to face the challenges of a new semester. For some of you this will be the beginning of your journey with MESA as you start working toward your degree. For others, this year will represent the beginning of the end at El Camino College as you begin to submit your application to transfer to the school of your choice. Keep in mind that MESA is here to help you succeed no matter where you are in your journey.

Get involved in MESA. It is only through your participation that will you reap the benefits such a program offers. Participate in the AEW workshops and see your grades improve. Study in the MESA Center and develop working partnerships and friendships with your fellow MESA students. Participate in MESA activities and begin to set up networks that will be with you for a lifetime. Join companion clubs such as the Science Club and SHPE (Society for Hispanic Professional Engineers) to share your ideas and develop your leadership skills. MESA can be anything you want it to be and under the direction of Arturo Hernandez, MESA will continue to serve as the hub for students interested in math, science and engineering. Through his leadership and the hard work of the MESA students, MCS 100E, has been prepared as an alternate site to study.

I look forward to meeting all of you throughout the semester at various functions. Please remember the success of the MESA Program and consequently your successes depend on you. Enjoy the year – work hard but remember to have fun.

Barbara Perez
Dean of Natural Sciences

Welcome to the Fall Semester.

Welcome to El Camino College, new students! Welcome back, continuing students! The college has established the MESA Center to provide academic support and a home base for students seeking to major in science, engineering and mathematics. It's a place for quiet study, for group study, and for relaxation. The MESA Center is the home for the Academic Excellence Workshops, the MESA reference collection, and MESA special events.

At the MESA Center, you will find other students who enjoy learning more about science and math, who appreciate a tough problem and a powerful idea. By working together and sharing your perspectives, you will become a stronger student. While you are at El Camino College, you are just starting on your way to becoming a science or engineering professional, and sharing ideas with colleagues is a key skill for a successful professional knowledge worker.

So take advantage of the space, the computers, the special events, the staff, the counselors, and your fellow students. El Camino College and the MESA program are all about making students more successful. Take the opportunity and thrive!

Dr. Don Goldberg
Dean of Mathematical Sciences

Academic Counseling Services

Welcome to the new academic year! As your counselors, we look forward to developing a close relationship with you to assist you in your academic planning, career exploration, choice of transfer schools, and with any difficulties that you may face as you are adjusting to college.

You may come to see us at the MESA Center on Monday and Wednesday afternoons between 1:00pm-3:00pm or you can also make individual appointments with us in the Counseling Center by calling the Counselor Appointment Desk at (310) 660-3458. Feel free to see us if you need anything at all, even if it is just to chat.

Madeleine Carteron & Ken Key



MESA NEWSLETTER STAFF

Supervisors: Arturo Hernandez, MESA Director; Barbara Perez, Dean of Natural Sciences; Dr. Don Goldberg, Dean of Mathematical Sciences

Contributing Designer/Editor: Elizabeth Bermudez, MESA Program Assistant

MESA ACTIVITIES/EVENTS FALL 2006

MESA Study Center (MCS 100F) — The MESA Study Center, located in MCS 100F, is a great resource center for math, engineering, and science students. Students have access to various computers that can aid in homework completion, research, and special math and science programming. In addition, the study center promotes networking experiences, up-to-date information of campus activities and events, university information, academic advising, and even a quiet study area at a conveniently central location. Please refer to MESA Center open hours.

Academic Counseling — A great asset to the program, MESA encourages student visits with academic counselors who can guide students' educational goals. Two academic counselors are available in the MESA Center to discuss and develop Student Educational Planners: Madeleine Carteron & Ken Key will be available in the MESA Center on Monday and Wednesday afternoons from 1pm-3pm. No appointment is necessary.

Academic Excellence Workshops (AEW) — MESA provides at least 10 AEW in the fall. ALL students can take advantage of free workshops in math (170, 180, 190, 191), chemistry (4, 1A, 1B, 7A), and physics (1A, 2A). If a MESA Student is enrolled in a course that reflects the subject of the workshop, they are required to attend the workshop. Please contact MESA Director for more details.

MESA Open House — Join MESA on August 31, 2006, from 10am-3pm, as we showcase our resources and facility to new faculty, staff, and students. The purpose of this activity is to increase the visibility of the program and provide outreach that can attract more students and faculty to the MESA team.

Special Guest Visits — The MESA program arranges special guest visits in the MESA Center each semester; such visits can include: engineering panels, university representatives, student research presentations, etc.

Travel — MESA provides travel opportunities for students involved in conferences, leadership retreats, as well as access to several industry tours (e.g. Northrop Grumman, Hyperion Water Treatment Plant, UCLA Tokamak Laboratory, etc.) and university tours.

Please check MESA Center for specific dates and activity schedules.

MESA Director

Welcome—

The El Camino College MESA program has been recognized and awarded for its hard work and determination to promote student academic excellence. In that effort, and with the support we have achieved, MESA progressively is making the necessary arrangements to expand the MESA Study Center. Thanks to the support of the El Camino College Foundation and Northrop Grumman, MESA will have more computers available, and a comfortable area that will allow more flexibility for students, whether using the

computer area or the study area.

In addition, the fall semester is filled with deadlines and activities, so I hope that all MESA students take advantage of the resources—such as internship and scholarship opportunities, tours, workshops, etc.—MESA provides to facilitate active engagement in your career. It is rare for community college students to have access to the experiences MESA can help you attain, so that when you transfer you will be distinguished because of your ambition to gain as much experience and resources to promote your education early in your

studies. This is the objective of MESA, and it is the same encouragement we provide to future MESA Students. Joining the program is not only a way to distinguish yourself, but also a commitment and responsibility to your education.

I look forward to meeting more new students who are willing to join this community of learners, and help guide the current students that are almost ready for that next step at a higher institution of learning.

—Arturo Hernandez, MESA Director

The El Camino Community College District is committed to providing equal employment and educational opportunities for all individuals, regardless of race, color, ancestry, religion, gender, national origin, marital status, sexual orientation, handicap, age, and Vietnam-era status.