Why MESA?
As the world economy changes from an industrial focus to technological focus, it is important to prepare our students to be successful. That means introducing them to applications of Science, Technology, Engineering and Mathematics (STEM) in their classes and through hands-on projects. MESA serves that purpose.

About MESA
Mathematics, Engineering, Science Achievement (MESA) is nationally recognized for its innovative and effective academic development programs. MESA engages thousands of educationally disadvantaged students so they excel in math and science and graduate with math-based degrees. MESA partners with all segments of California higher education as well as K-12 institutions.

MESA, in existence for the past 45 years, has a proven track record of producing math-based graduates by providing support such as classes, hands-on competitions, counseling, transfer support and a community environment to students from middle school through four-year college.

Since 1970, MESA has helped students become scientists, engineers and mathematicians, filling an urgent need for qualified technical professionals. Through three branches of MESA, students from all segments of education are served through local centers throughout California. MESA partners with industry and all the major education institutions in California.

Who MESA Serves
Most MESA students are the first in their families to attend college. Most are low-income and attend (or have attended) low-performing schools with few resources. MESA serves students in pre-college through the MESA Schools Program (MSP), community college students through the MESA Community College Program (MCCP), and four-year college level students in the MESA Engineering Program (MEP).

How MESA Works
Through a close partnership with industry and the state's education systems, MESA:
- Challenges students with rigorous academics.
- Ensures that college prerequisites, transfer requirements and graduation requirements are successfully fulfilled.
- Builds supportive communities to encourage academic success.
- Teaches collaborative learning techniques that help reinforce key concepts.
- Provides professional development for math and science teachers.
MESA is administered by the University of California and is funded by the state legislature, corporate contributions and grants. California MESA is a national model for similar academic programs in many other states.

**UCLA MESA Program**

The UCLA MESA Program is housed under the UCLA Henry Samueli School of Engineering and Applied Sciences Center for Excellence in Engineering and Diversity (CEED) which is directed by Enrique Ainsworth. The program, in existence since 1997, managed by the Assoc. Director of Pre-College Programs, Catherine Douglas, serves an average of 1100 students and works with approximately 23 teachers each year.

The UCLA MESA Center continues to work toward engaging and advancing the academic development of educationally disadvantaged student groups with low UC eligibility students in STEM. Each year, efforts are made to further support and enhance the MESA model through supplemental activities for MESA students, advisors and parents and to increase students’ success and persistence in STEM. These programs include: Saturday Academies, to provide assistance on MESA projects; STEM competitions in the LA area, to gain hands-on experience; Financial Aid Workshops, to provide information on funding college; and pre-college Summer Enrichment Programs, enhance student academic preparation for college. These summer programs, hosted by the CEED Program, include:

1) The Summer Math and Science Honors (SMASH) Academy is a five-week residential STEM Enrichment Program for students in the ninth grade on the UCLA campus. The first year curriculum covered Algebra II; Computer Science I: Object Oriented Programming with SCRATCH; Biology: College Success, Argumentative Writing and Projects in STEM I. The second year students took classes in Chemistry; Math Analysis/Calculus, College Success II; Computer Science II; Expository Writing; Programming with JAVA/Web Development with HTML; and Projects in STEM II.

2) The Science Mathematics Achievement and Research Training for Students (SMARTS), is a six-week commuter summer college advancement program for rising 11/12th grade students. The curriculum consists of two community college credit courses taught on the UCLA campus —Statistics and Robotics; AP Calculus Readiness; SAT preparation (18 hours) with full length pre- and post-test to assess student improvement; and the Research Apprentice Program, sponsored research by faculty for seniors.

3) Translational Applications of Nanoscale Multiferroic Systems (TANMS) Young Scholars Program (YSP) is a 6-week summer program that educates high school students on basic engineering sciences, fundamental research, university life, and career opportunities. Students also received education on engineering business opportunities and participated in applied and basic research projects.

It is only through programs like UCLA MESA that we can successfully prepare our students for the future!
Schools served by the UCLA MESA Program during the 2015-2016 academic year.

**Senior High Schools**
- Academy of Science and Engineering (Charter)
- Crenshaw High School
- City Honors High School (IUSD)
- Dorsey High School
- Fairfax High School
- Hamilton High School
- Inglewood High School
- L.A.C.E.S.
- Lawndale High School
- Los Angeles High School
- Los Angeles County High School for the Arts
- Morningside High School (IUSD)
- UCLA Community School
- University High School
- Westchester High School

**Middle Schools**
- John Burroughs Middle School
- Cochran Middle School
- Crozier Middle School
- Emerson Middle School
- Monroe Middle School (IUSD)
- Parent K-8 School (IUSD)
- Webster Middle School

The following UCLA MESA calendar indicated all of the MESA and STEM activities planned for the 2015-2016 Academic Year

**AUGUST 2015**
- Monday, August 31: JPL Invention Challenge Registration Opens

**SEPTEMBER 2015**
- Saturday, September 26: PAC 2.0 Arduino Training @ Chapman University

**OCTOBER 2015**
- October TBD: SOLES Noche de Ciencia
- Computer Science Workshops
- College Application Process (for Students and Parents)

- Saturday, October 3: MESA Parent Orientation
- UCLA MESA Math Tutoring
- JPL Invention Challenge Registration DEADLINE @ 12:00 AM

- Saturday, October 17: UCLA MESA Math/Science Tutoring

- Wed. & Thu Oct. 28 & 29: Cash for College: College & Career Convention

- Saturday, October 31: UCLA MESA Math/Science Tutoring
- MESA College Day: Host - USC (Grades 9-12)

**NOVEMBER 2015**
- November TDB: FAFSA Workshop

- Saturday, November 7: UCLA MESA Math/Science Tutoring

- Saturday, November 14: UCLA MESA Math/Science Tutoring
Saturday, November 21       Prosthetic Arm 2.0 Workshop for Advisors
JPL Invention Challenge Regional Event

Wednesday, November 25      Engineers in Training Day (EIT): Host AISES, NSBE, SOLES

DECEMBER 2015
Friday, December 4           JPL Invention Challenge Final Event
Saturday, December 5         UCLA MESA Math/Science Tutoring

JANUARY 2016
Saturday, January 16        MESA Saturday Academy #1 – Prosthetic Arm 2.0
Saturday, January 23        MESA Saturday Academy #2 – Mousetrap Car
Saturday, January 30        MESA Saturday Academy #3 – Balsawood Bridges

FEBRUARY 2016
Saturday, February 6        MESA Saturday Academy #4 – Balsawood Plane/Glider
Saturday, February 13       MESA Saturday Academy #5 – EggXpress
Saturday, February 20       MESA Saturday Academy #6 – Speak Out/Speak Up
Friday, February 26         Youth Motivation Day (YMD) - Host AISES, NSBE, SOLES
Saturday, February 27       Senior MESA Day Prelims

MARCH 2015
Saturday, March 5           Junior MESA Day Prelims @ Webster Middle school

APRIL 2016
Saturday, April 9           LA Metro Region SR. MESA Day Competition @ CSU Long Beach
Saturday, April 23          LA Metro Region JR. MESA Day Competition @ UCLA

MAY 2016
May TBD                     MESA Robotics Challenge at USC
Week of May 2               Individual Academic Planning Sessions for 8th grade students
Friday, May 20              Women in Science and Engineering Day (WISE) – Host AISES, NSBE, SOLES

To enroll complete the attached MESA Enrollment Form and Parent Authorization Form and submit the completed paperwork to the MESA Advisor at your child’s school.

To find out more about the MESA Program go to http://mesa.ucop.edu/
UCLA MESA Website: http://www.ceed.ucla.edu/programs/k-12/mesa-schools-program/msp
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CEED Director, Enrique Ainsworth
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