

UCI Samueli School of Engineering MESA College Prep Program

University of California, Irvine • Samueli School of Engineering

Mission Statement:

To create opportunities for educationally disadvantaged students, especially those from groups with low participation rates in college, to prepare for and enter professions requiring degrees in science, technology, engineering, and mathematics (STEM).

Vision of UCI MESA College Prep Program (MSP):

Our vision is to sustain and advance an exemplary academic preparation program that fosters a college-going culture and ensures that the populations we serve are "competitively eligible" for admissions to colleges and universities upon graduation from high school. The core of our program is a rigorous math and science-based curriculum flexible for various implementation models coupled with an adoption of the maker movement, of which digital and physical making is the focus.

Services provided:

- Learning Culture of Success: The foundation for success in STEM begins with the understanding that we are life-long learners, and by embracing a set of skills, habits, and attitudes about learning, success will follow in any facet of life.
- Project-based Learning: Students engage in several hands-on activities and competitions across several STEM disciplines and designed to reinforce science and engineering principles. Maker technologies like laser cutting and 3D printing are encouraged, as are other digital making platforms like Raspberry Pi and Arduino.
- Individual Academic Planners (IAP): IAP's help students and parents plan and monitor individual academic progress towards becoming competitively eligible for college.
- Career and College Exploration: A series of seminars designed to introduce and guide students through the college application process and expose them to opportunities in STEM fields. Students have opportunities to visit different colleges and universities in Southern California.
- Industry Exposure: Opportunities for students to be part of industry partnerships through programs, site visits, and mentorship. Increase visibility of STEM companies and careers to MESA students.
- Teacher Professional Development: Opportunities are offered to MESA advisors featuring hands-on curriculum, virtual trainings, and new technologies and methods for teaching math and science.
- Parent Education Program: Our parent outreach efforts are geared to educating MESA parents about the college-going process, financial aid, benefits of MESA and STEM, and providing them with more resources so they can better support their MESA students.
- Undergraduate Role Models: Trained UCI undergraduates support MESA sessions and provide academic advising and mentoring.

In 2020-2021, we will serve the following schools in LA and Orange County:

Anaheim UHSD: Ball Jr HS, Dale Jr HS, South Jr HS, Sycamore Jr HS, Loara HS **Compton USD:** Centennial HS, Dominguez HS, Early College HS Los Angeles USD: Markham MS, Fleming MS, King/Drew Magnet HS Lynwood USD: Cesar Chavez MS, Lynwood MS, Firebaugh HS, Lynwood HS Garden Grove USD: Bolsa Grande HS, Garden Grove HS

Newport-Mesa USD: Costa Mesa MS, Costa Mesa HS, NM Early College HS Santa Ana USD: Godinez Fundamental HS, Saddleback HS, Valley HS

> Fullerton USD: Beechwood MS Los Nietos SD: Los Nietos MS Orange USD: Unity Middle College HS

Charter/Independent: KIPP Comienza Academy (LA), El Sol Science & Arts Academy (Santa Ana)

Total Students: ~1000