

# USC MESA

USC Viterbi

School of Engineering  
K-12 STEM Center



**MESA**  
Math · Engineering · Science  
Achievement

## Member of the STEM PUSH Network, an NSF INCLUDES Alliance

USC MESA is a STEM college preparation program at over 30 partner middle and high schools throughout Los Angeles. MESA provides a pathway of academic services from middle school through university level to increase the number of underrepresented students who graduate with degrees in STEM.

College prep students participate in activities throughout the academic year to demonstrate interest and engagement in STEM and to prepare to pursue STEM majors at two- and four-year colleges and universities. College prep activities include STEM projects and competitions, field trips, leadership development, college and career preparation, robotics competitions, Catalina Island STEM Exploration, and summer programs.

### USC MESA emphasizes & develops several targeted outcomes, including:

- Problem solving and critical thinking skills
- Ability to work in collaborative environments
- Connections between STEM content & real-world experiences
- STEM identity & sense of belonging
- Building confidence and agency in STEM



Students demonstrate these skills through engaging in hands-on STEM activities; designing, building and testing STEM projects; connecting with mentors; and participating in STEM competitions.

### About the STEM PUSH Network

STEM PUSH, an NSF INCLUDES Alliance, is a national network of pre-college STEM programs who are engaging youth historically underrepresented in STEM to learn & do in-depth, authentic science, and ultimately to persist in STEM through college & beyond. More information available at [stempushnetwork.org](http://stempushnetwork.org).



## USC MESA Features

### STEM Focus

Engineering, Physical Science, Life Science, Computer Science, & Math



**2-3 hours/week**

each academic year

**1,200** students served each year

**Free** for students to participate

### College & STEM career sessions

held each month for USC MESA students

**76%** of USC MESA students are underrepresented in STEM

## USC MESA Results

**96%** of USC MESA alum attend college

**60%** of alum in college declare STEM majors

## Alumni have attended institutions including

- Cal Poly San Luis Obispo
- Cal State LA
- California State University, Long Beach
- Harvard University
- MIT
- UC Berkeley
- UC Irvine
- UCLA
- University of Southern California
- Stanford University



## USC MESA has been improving with STEM PUSH

- Building an alumni community on LinkedIn
- Measuring critical thinking skills of MESA students through student surveys and teacher observation

## California state & national model

with MESA community college and university programs helps to support alumni in college

# USC MESA

Established in 1977, USC MESA has served first-generation college, low income, and under-represented students in STEM for over 45 years. MESA students meet weekly at their local middle and high schools and come to the USC campus for college and career sessions, competitions, and other events.

USC MESA keeps a close connection to former MESA students, many of whom who are now current USC students. The MESA College Prep graduates work to help current MESA students achieve their academic dreams too.



"Through MESA, I have found never giving up to be especially resonant. This idea of never giving up is a fundamental idea that drives me to do what I want to do, to pursue a career in STEM, to show what is possible for my younger siblings, and to make not just my family and friends proud, but myself as well."



## Key study findings demonstrate that MESA...

- Provides opportunities for students to increase self-efficacy and motivation to persist in STEM
- Prepares students for college
- Inspires interest in STEM



Findings are from three collaborative dissertation research projects studying USC MESA effectiveness and impact in 2017 (Haramis, Jung, and Parmar): *The effectiveness of MESA on the persistence of educationally disadvantaged students in STEM: An executive summary of MESA from secondary to postsecondary education.*

## Connect with USC MESA!

Contact [uscmesa@gmail.com](mailto:uscmesa@gmail.com) for more information.

More information about USC MESA is available at [viterbik12.usc.edu/uscmesa/](http://viterbik12.usc.edu/uscmesa/).

