



Santa Barbara City College  
MESA Program



# STEM 101

## INTRODUCTION TO SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

JULY 31 - AUGUST 7, 2026

### INFORMATION SHEET

The **MESA Program** (Mathematics, Engineering, Science Achievement) is a support program dedicated to assisting first-generation, low-income, under-represented students interested in pursuing a career in the STEM disciplines. The program is nationally recognized as an innovative academic development program serving underrepresented STEM students.

STEM 101 is a 3-unit introductory course that explores the sciences (biology, chemistry, computer science, earth science, engineering, geography, mathematics, and physics) and how these disciplines connect and work together to solve real-world problems. In addition to a few on-campus class meetings, students will participate in a multi-day off-campus camping experience that allows us to explore STEM in action. Each day will focus on a different STEM field to give students a unique opportunity to see how STEM fields intersect in the real world. Activities will include tours of different facilities and networking with scientists and engineers. An important part of the experience is building a strong cohort of students. While camping together, we will share meals, participate in fun camp activities, and spend time getting to know one another outside of the classroom. Students often return to campus with strong friendships, a supportive academic community, and a network of peers who continue through their STEM journey together.

### CAMPING LOGISTICS

#### FIELD TRIP DATES: AUGUST 1-6, 2026

We will stay at a base camp in Pine Mountain Club, CA. Facilities include catered breakfast-lunch-dinners, showers, indoor recreation area with AC, and classroom space. We can provide all gear needed for the experience if you don't have a tent or camping equipment. This is a great experience for both new campers and pros!

All expenses (food, transportation, camp fees, etc) will be covered by the MESA program.

### ELIGIBILITY

Participating students must be MESA eligible and plan to continue with the program after completion of this course.

To participate, you must identify as:

- First Generation College Student
- Eligible for Financial Aid
- Major in Mathematics, Science, or Engineering

### INSTRUCTIONAL & SUPPORT STAFF

Dr. Stephanie Mendes is the instructor for the course. Students will also work alongside tutors and MESA staff throughout the course.

### BENEFITS OF MESA

As a MESA program participant, you will have access to:

- MESA Center and services
  - private study space with outlets, textbooks, and whiteboards available
  - Access to STEM tutors
- Dedicated STEM counselor for course planning
- STEM scholarships, internships, and mentoring
- Academic and professional conferences
- Opportunities for professional development
- Networking events

### STEPS TO ENROLL

If you are interested in participating, follow the steps below:

1. Complete the Interest Form (see QR Code)
2. Complete MESA Application
3. Meet with MESA Academic Counselor or Program Director
4. Commit to pursue STEM Degree



## TENTATIVE SCHEDULE (SUMMER 2026)

Date	Event Details
July 31, Fri	Location: SBCC Campus Topic: Welcome and Orientation
Aug 1, Sat	Location: Morning at SBCC Topic: STEM workshops * Travel to base camp by early afternoon
Aug 2, Sun	Field Trip Location: Tehachapi Mountains Topic: Engineering and Physics
Aug 3, Mon	Field Trip Location: Carrizo Plain Topic: Earth Science and Geography
Aug 4, Tues	Field Trip Location: Frazier Park Topic: The Chemistry of the Environment
Aug 5, Wed	Field Trip Location: Wind Wolves Preserve Topic: Biology- Life in the Ecosystem
Aug 6, Thur	Field Trip Location: Base Camp (PMC) Topic: Mathematics / Data Science
Aug 7, Fri	Location: SBCC Campus Topic: Internship and PD Workshop
TBD	Final Projects will be submitted online

## COURSE GRADING

Grade Component	%
MESA Program Activities	10
SBCC "Lab" Activities	20
Field Trip Lab Exercises	50
Case Study Report (Final Project)	10
Expedition Behavior (Participation)	10

**MESA Program Activities:** Completion of MESA on-boarding process and other academic readiness activities.

**Lab Activities and Exercises:** Assignments (both on- and off-campus) will be graded on completeness and accuracy.

**Case Study:** Students will choose a topic to research and submit an analysis based on topic/assignment guidelines

**Expedition Behavior:** Grade is based on participation and adherence to community guidelines

## PLEASE NOTE

**Academic Materials-** Students should bring note-taking supplies (such as a notebook, pens/pencils, and a backpack) for daytime and field trip activities. While at SBCC or in camp, students will have access to Wi-Fi and will complete digital assignments and activities. Please bring your tablet/laptop with you.

**Expectations-** This is a condensed academic course and each day is fully maximized with activities. Evenings in camp are also reserved for group activities and team building. There won't be time to work on outside activities (i.e. other online courses) during this short course.

**Weather-** During the field trip activities, weather can be extreme and change quickly. Prepare for heat and cold, wet and dry conditions.

## WEBSITE

For equipment list, resources and more:  
[www.sbcc.edu/stem101](http://www.sbcc.edu/stem101)

## QUESTIONS

**Contact us or stop by the MESA Center**

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