El Camino College student Mario Cabrera will travel to NASA's Johnson Space Center (JSC) for a three-day academic experience in Houston, Texas this month. He will participate in the National Community Aerospace Scholars (NCAS) program, designed to give students a look into science, technology, engineering, and mathematics careers.

“I am looking forward this experience – I have already learned a lot about NASA and all their missions to Mars from countless hours of research that went into completing each of the four assignments required during the application process,” said Cabrera, a MESA (Mathematics, Engineering, Science Achievement) student majoring in aerospace engineering.

“All this would not have been possible without MESA and MESA staff for letting me know about this opportunity and for supporting me with anything that I needed to meet the application deadline. I'm looking forward to learn a lot more from this three-day trip and to share my experiences with everyone.”

Funded by NASA's Exploration Systems Mission Directorate (ESMD) and administered by NASA JSC, this pilot program gives community college students from across the nation the opportunity to work on a hands-on project directed by NASA engineers; attend engineer, scientist and astronaut briefings; tour NASA JSC facilities; and interact with students from across the United States.

Cabrera was chosen from among hundreds of candidates to attend this seminar. As part of the selection process, he was given an assignment to design and plan a robotics mission to Mars. He first wrote an abstract of the proposal, outlining the goals of the mission. Next, he drafted a timeline/budget including, launch date from Earth, landing date on Mars, duration on Mars, and return dates. Then, he developed a landing site; rover and lander specifications; and experiments. The final part of the assignment was a line drawing of the rover and lander, which needed to include the specifications listed in the proposal and all the parts needed to be clearly labeled. His outstanding work received two perfect scores.

The MESA Program at El Camino College provides support to community college students who are majoring in math or science so they excel academically and transfer to four-year institutions. The program has received outstanding results providing a diverse pool of transfer-ready students who are prepared to excel as math, engineering and science majors. MESA's rigorous academics, leadership preparation, and collaborative problem-solving training have helped produce transfer students who graduate as part of the high-tech workforce that is so urgently needed by industry.