Faced with STEM enrollment and persistence trends that indicate Hispanic and other low-income students are not receiving the academic and support services needed for success; MVC enters into this project to serve their constituents through an expansion of STEM curriculum and learning support services that addresses a growing need of employers in the region and needs of the students to improve completion and transfer rates in STEM fields of study. It is imperative that the institution expand, improve upon, and maintain STEM academic and support services providing high quality and effective STEM programs. MVC is seeking HSI STEM funding, targeting Hispanic and other low-income students, to continue, enhance, and improve transdisciplinary and integrated approaches involving STEM academics and support services. In carrying out this activity, MVC has the opportunity to create aligned curricula and programs in Physics, Math, CIS, Gaming/Simulation, GIS, Biology, and Chemistry; develop STEM transfer and articulation agreements, and to bring about regular interaction among STEM faculty and staff for training and planning. This is a single, multidisciplinary activity that represents an aggressive approach to institutional change, specifically addressing improvements in STEM academics and services with the goal to improve graduation and transfer rates for targeted student populations.

Building on STEM research and literature including best practices, MVC will refine, expand, enhance, and integrate a series of STEM projects that will better address the needs of our STEM students with a focus on Hispanic and other low-income students. The project expands and enhances MVC’s STEM Student SUCCESS Center integrating a state-of-the-art Technology Center and Mobile Innovation Center. Designed to provide students the opportunity to explore and engage in STEM on-line courses; virtual labs; gaming and simulation programs; GIS programs; mobile applications; STEM career and transfer resources; current STEM research and literature; and STEM academic support services (Supplemental Instruction (SI), mentoring, etc.) the creation and integration of the Technology Center and mobile labs into the SSSC provides the opportunity for targeted students to experience project-based learning, hands-on and interactive STEM activities and multimedia experiences. STEM counselors and Student Support Specialists will provide students with comprehensive support services including case management counseling; career and transfer pathways; and academic services. MVC proposes a comprehensive and well-coordinated effort between STEM academics, students, support services to provide supplemental focus and assistance to targeted students. A core aspect of this project will be to utilize the expertise available through partnering universities to improve the quality of STEM transfer pathways and programs, STEM articulation agreements, and STEM faculty development programs. In working with partnering universities, MVC seeks to address STEM articulation of standards and improvements in the preparation of students before transferring while exploring STEM faculty development through faculty development, internships, and STEM research.

Project TAP’s mission is to address the diversity of MVC students, their academic preparation and success in STEM, and their learning through institutional change in STEM academic and support services that integrates virtual educational technologies into STEM academic and support services programming.
Project Goals:

**Goal 1:** Increase student completion rates of targeted students in STEM.

**Goal 2:** Increase graduation and transfer rates of targeted students in STEM fields of study.

**Goal 3:** Improve and increase STEM articulation and transfer agreements between MVC and four-year universities.

**Goal 4:** Increase the number of targeted students who pursue careers in STEM fields.

**Goal 5:** Track and make informed decisions to increase capacity, data utilization, student learning outcomes, and completion rates.

**STEM Mobile Innovation Center...**

is designed to create a mobile innovation “learning” center delivering STEM engagement and outreach activities under the direction of Moreno Valley College’s (MVC) STEM Student SUCCESS Center (SSSC). Created to advance STEM education by providing hands-on, interactive activities; training and professional development opportunities for students, faculty, and staff; and unique STEM experiences, the STEM Mobile Innovation Center will bring STEM education laboratories with state-of-the-art technologies to MVC and the community (K-20, community organizations). As a result, students will experience a high level of exposure and engagement to STEM education.

Engaging students and the community, MVC will provide open access to the STEM Mobile Innovation Center for individual and collaborative groups of learners. STEM outreach will involve hands-on, multidisciplinary labs and multi-media technologies. The STEM Mobile Innovation Center through new and improved technologies and unparalleled STEM experiences will provide opportunity to foster STEM diversity through attention to the cultural backgrounds of students and their educational needs.

MVC’s STEM Mobile Innovation Center will contain interactive labs for the general sciences; simulation/gaming; biology; chemistry; physics; and astronomy.