Plans for STEM Program and Center >> 2025 - 2026 STEM Program and Center CHC Student Services 2Yr. or SLO Plan 2025-2026

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Name :

2025 - 2026 STEM Program and Center CHC Student Services 2Yr. or SLO Plan 2025-2026

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Instructions

The two-year plan provides the opportunity for each program to update their four-year action plan and requires each plan to provide the current status on outcomes assessment, progress on effectiveness measures, and progress each program has made on achieving their goals and objectives.

Please respond to the following questions. Please consult the Integrated Planning and Program Review Handbook for detailed instructions, the timeline for due dates, and the year-to-year schedule for all PPR programs.

1. Mission

Updating this Question is Optional on the 2Yr and SLO Plan

a. Tell us your unit's mission: Provide a mission statement for your unit that clearly and succinctly describes your unit's purpose, idealistic motivations, and change it hopes to inspire.

b. Alignment with the college Mission: **Rubric Item** (Mission Alignment): The Crafton Hills College mission is to change lives. We seek to inspire our students, support our colleagues, and embrace our community through a learning environment that is transformational. Crafton Hills College welcomes everyone and is committed to working with students from diverse backgrounds. The College has an exceptional learning environment built on a tradition of excellence, a talented faculty, a driven student body, a committed staff, with passionate leadership and community support. **In what ways does your program advance the mission of the college?**

a. Mission:

The Crafton Hills College STEM Center's mission is to foster an inclusive and welcoming space where students are empowered by knowledge, driven by innovation and creativity, and encouraged by community. Additionally, our mission is to serve as a learning resource center in which students can seek academic support, be connected to transfer and career

services, and build a network of peers, faculty, and staff who are committed to their success.

b. Alignment with the college's Mission:

The mission of the STEM Center aligns with the mission of the college in that all efforts prioritize diversity, equity, and inclusion and are driven by creating a transformational experience for students, especially for those historically underrepresented in STEM. As defined by the National Science Foundation (NSF), this includes students from the following groups: Black/African American, Hispanic/Latinx, American Indian/Alaskan Native, women, persons with disabilities, and those within the LGBTQiA+ community. The STEM Center warmly welcomes all students within the San Bernardino Community College District (SBCCD) and encourages students to take advantage of all available resources, including but not limited to, dedicated study rooms, faculty support, textbooks and instructional supplies, computers, workshops, tutoring services, Supplemental Instruction (SI) sessions, and counseling. The STEM Center also increases exposure to and awareness of STEM transfer and career opportunities by coordinating field trips, research & internship opportunities, campus tours, guest speakers, and career fairs. Finally, the STEM Center advances the mission of the college by cultivating a collaborative culture where all perspectives and experiences are valued and considered when planning operational functions of the center.

2. Description of Program

Updating this Question is Optional on the 2Yr. and SLO Plans

Please describe your program, including the following:

a. Organizational structure and staffing

b. Whom you serve (including demographics and representativeness of population served)

c. Provide a list and a brief description of the services you provide as well as a minimum of three years of trend data for each identified service

d. **Rubric Item**: Describe your Pattern of Service including standard hours of operation, alternative modes and schedules of delivery (e.g.: online, hybrid, early morning, evening services, etc.) and how that service meets the needs of students or clients. Please incorporate available quantitative or qualitative evidence in your response.

a. Organizational structure and staffing

Presently, the STEM Center is housed within the division of Social, Information & Natural Sciences. The STEM Center is currently comprised of one full-time administrative assistant (Caroline Aguirre), whose position is 50/50 funded between the STEM Center general fund and MESA grant fund. Historically, the STEM Center has depended on faculty support through non-instructional contracts funded through the STEM Center general fund. However, since implementing the MESA grant in 2022-2023, the STEM Center general fund supports non-instructional faculty limited to the amount of $7,500 per semester. On average, the STEM Center employs between 4 and 7 adjunct faculty per semester, ranging in STEM discipline, to provide academic support during operating hours. Beginning 2023-2024, the STEM Center hired Federal Work Study (FWS) students to assist with basic operational tasks. Lastly, the STEM Center houses a full-time director, Krysten Audibert, hired in July 2023, a position that is funded entirely through the MESA grant.

The administrative assistant is responsible for providing administrative support for both the STEM Center and the MESA program. The tasks associated with this position include, but are not limited to, calendaring of events, maintaining student files, acting as liaison between other student services, budget monitoring, and assisting the director as needed.
The non-instructional faculty provide academic support, facilitate workshops, and participate in campus and community engagement events.
The FWS student workers assist the director and administrative assistant with ad hoc projects, monitor student check-ins, and field phone calls and general questions regarding the STEM Center and MESA program.
The director is responsible for overseeing the work of all previously mentioned positions and the general operations of the STEM Center. Additionally, the director collaborates across the campus, district, and community at large to ensure that students' needs are met and exceeded through consistent service and support. The director is responsible for the program development of MESA, in alignment with the goals and objectives outlined by the California Community College Chancellor's Office (CCCCO) and other MESA programs throughout the state. Finally, the director maintains the budget, recruits student workers and faculty, and performs various administrative tasks as needed.

b. Whom you serve (including demographics and representativeness of population served)

The STEM Center is open to all students enrolled in courses within SBCCD, with a particular emphasis on STEM courses (Anatomy & Physiology, Biology, Chemistry, Computer Science, Geology, Mathematics, Microbiology, and Physics). However, our support is not limited to STEM majors or students enrolled in STEM courses.
To best understand the STEM students that we serve at Crafton Hills College, it is important that we understand how they reflect the general student population.
Of the 8,430 students enrolled at Crafton Hills College for the 2020-2021 academic year, 404 students self-identified as Asian (4.8%), 371 students self-identified as Black/African American (4.4%), 180 students self-identified as Filipino (2.1%), 4,222 students self-identified as Hispanic (50.1%), 14 students self-identified as Native American/Alaskan Native (0.2%), 17 students self-identified as Pacific Islander/Hawaiian Native (0.2%), 485 student self-identified as two or more races (5.8%), 90 students self-identified as unknown/unreported (1.1%), and 2,647 students self-identified as White (31.4%). 4,835 students self-identified as female (57.4%), 3,583 students self-identified as male (42.5%), and 12 students did not specify their gender (0.1%). 2,783 students were 19 years old or younger (31.3%), 2,953 students 20 to 24 years old (33.2%), 1,384 students 25 to 29 years old (15.6%), 740 students 30 to 34 years old (8.3%), 441 students 35 to 39 years old (5.0%), 395 students 40 to 49 years old (4.4%), and 189 students 50 years old or older (2.1%).
Of the 8,556 students enrolled at Crafton Hills College for the 2023-2024 academic year, 470 students self-identified as Asian (5.7%), 377 students self-identified as Black/African American (4.6%), 73 students self-identified as Filipino (0.9%), 4,445 students self-identified as Hispanic (54.0%), 27 students self-identified as Native American/Alaskan Native (0.3%), 16 students self-identified as Pacific Islander/Hawaiian Native (0.2%), 440 student self-identified as two or more races (5.3%), 48 students self-identified as unknown/unreported (0.6%), and 2,339 students self-identified as White (28.4%). 4,508

students self-identified as female (54.7%), 3,570 students self-identified as male (43.4%), and 157 students did not specify their gender (1.9%). 3,140 students were 19 years old or younger (36.7%), 2,611 students 20 to 24 years old (30.5%), 1,110 students 25 to 29 years old (13.0%), 625 students 30 to 34 years old (7.3%), 360 students 35 to 39 years old (4.2%), 465 students 40 to 49 years old (5.4%), 239 students 50 years old or older (2.8%), and 6 students did not report their age (0.1%). For a comprehensive report of this data, please refer to Appendix X.

Comparatively, in the 2020-2021 academic year, there were 1,067 students who declared a STEM major (for a full list of the programs included in this data, refer to Appendix X). Of these STEM majors, 82 students self-identified as Asian (7.7%), 31 students self-identified as Black/African American (2.9%), 28 students self-identified as Filipino (2.6%), 516 students self-identified as Hispanic (48.4%), 2 student self-identified as Native American/Alaskan Native (0.2%), 0 students self-identified as Pacific Islander/Hawaiian Native (0%), 72 student self-identified as two or more races (6.7%), 6 students self-identified as unknown/unreported (0.6%), and 330 students self-identified as White (30.9%). 667 students self-identified as female (62.5%), 393 students self-identified as male (36.8%), and 7 students did not specify their gender (0.7%). 326 students were 19 years old or younger (30.6%), 386 students 20 to 24 years old (36.2%), 154 students 25 to 29 years old (14.4%), 98 students 30 to 34 years old (9.2%), 54 students 35 to 39 years old (5.1%), 36 students 40 to 49 years old (3.4%), and 13 students 50 years old or older (1.2%).

In the 2023-2024 academic year, there were 1,816 students who declared a STEM major (For a full list of the program included in this data, refer to Appendix X). Of these STEM majors, 185 students self-identified as Asian (10.2%), 77 students self-identified as Black/African American (4.2%), 27 students self-identified as Filipino (1.5%), 915 students self-identified as Hispanic (50.4%), 5 students self-identified as Native American/Alaskan Native (0.3%), 2 students self-identified as Pacific Islander/Hawaiian Native (0.1%), 94 student self-identified as two or more races (5.2%), 12 students self-identified as unknown/unreported (0.7%), and 499 students self-identified as White (27.5%). 1,047 students self-identified as female (57.7%), 738 students self-identified as male (40.6%), and 31 students did not specify their gender (1.7%). 641 students were 19 years old or younger (35.3%), 628 students 20 to 24 years old (34.6%), 252 students 25 to 29 years old (13.9%), 108 students 30 to 34 years old (5.9%), 72 students 35 to 39 years old (4.0%), 83 students 40 to 49 years old (4.6%), 31 students 50 years old or older (1.7%), and 1 student did not report their age (0.1%).

This data shows that the population of STEM students at Crafton Hills College is consistent with the demographics of the college's general student population, as determined by ethnicity/race, age categories, and gender.

In addition to serving students, the STEM Center encourages faculty to actively engage in activities as well as host their office hours in the space. This has been an ongoing effort with an increasing number of part-time and full-time faculty using the center. Finally, the STEM Center serves several student-run clubs, including the Math Club, Physics Club, D & D Club, and Health Science Club by providing meeting space and assistance when needed.

A spreadsheet of this disaggregated data can be found in Supporting Documents, titled "RRN 3234 STEM Majors & CHC Student Demographics AY2020_21 and AY2023_2024 FINAL".

c. Provide a list and a brief description of the services you provide as well as a minimum of three years of trend data for each identified service

- Study Space: The STEM Center provides ample space for both individual and group study. In 2023-2024, 574 students (unduplicated count) used the STEM Center for group and/or individual study time. SARS Tracking data was not available for 2020-2021 to compare the beginning and end of the current PPR reporting period.
- Faculty Workspace: The STEM Center provides spaces that are available for faculty to hold office hours or to meet with students. This provides students with greater accessibility to faculty which may then deepen their sense of support. One room, CNTL-234, is specifically reserved for faculty to meet with students on a one-to-one basis or to serve as a dedicated workspace. In 2023-2024, we had 7 unique faculty members use the STEM Center to host their office hours and/or student meetings, bringing in 57 students into the center to attend these office hours.
- Academic Resources: The STEM Center offers academic resources, such as updated textbooks, computers, anatomical torsos, bone boxes and full human skeletons, chemistry molecular kits, a microscope with prepped slides, and a variety of other academic supplies to support students. In the 2023-2024 academic year, the STEM Center made technological upgrades in the main space (CNTL-218) and conference rooms (CNTL-220 and CNTL-221), which includes the installation of touchscreen monitors that function as computers and whiteboards with built-in cameras to host video conferencing.
- Workshops: In partnership and collaboration with faculty, the STEM Center has offered a multitude of workshops geared towards the development of or improving upon various academic and professional aspects. Topics covered have included Research Experience for Undergraduates, resume building, financial literacy, FAFSA, money management, How to Talk to Employers, and transfer readiness. In 2023-2024, 105 students attended these workshops.
- Tutoring/Supplemental Instruction: The STEM Center has partnered with the Tutoring Center to offer tutoring services in the center across various STEM disciplines, including math, chemistry, astronomy, physics, and computer science. It is important to note that, while these tutoring services are being provided in the STEM Center, the Tutoring Center facilitates the hiring, training, and scheduling of tutors. However, the STEM Center and Tutoring Center regularly communicate to discuss tutoring needs based on student feedback and make changes as deemed appropriate. For 2023-2024, tutors were paid solely from the Tutoring Center's budget, but discussion commenced in Spring 2024 to shift the responsibility of payment to the STEM Center's budget for the tutoring hours completed in the center moving forward. Notably, in Spring 2024, it was determined that these hours will be funded through the MESA grant, as the STEM Center's current general fund budget would not supplement these services.

In Fall 2023, tutoring and SI included Astronomy 150, Chemistry 101, Computer Science 110, Computer Science 120, Math 102, Math 103, and Physics 251. These tutoring services saw an influx of 97 students.
In Spring 2024, tutoring and SI included Astronomy 150, Chemistry 101, Computer Science 110, Computer Science 120, Computer Science 200, Math 102, Math 103, and Math 250. These tutoring services saw an influx of 136 students.
Though there was not significant data available for previous years, student attendance was anecdotally known to be relatively low. Moving forward, increasing student attendance will be prioritized by the STEM Center; a comprehensive action plan to address this goal is provided in section 4b.

- Scholarships: The STEM Center partners with the CHC Foundation to provide student scholarships from endowments and external organizations. The largest of these is from funds donated by Southern California Edison ($22,500), which awards a $1,500 scholarship to 15 students pursuing an AS-T in a STEM discipline. Additionally, in Spring 2024, Krysten Audibert secured funds from Crafton Hills College alumnus Tom Hancock to support an annual $500 scholarship (Crafton Hills Air & Space STEM Scholarship) for students pursuing any calculus-based STEM major. In continued partnership with the CHC Foundation, we plan to explore additional opportunities to secure scholarship support for STEM students. Lastly, the STEM Center staff regularly shares external scholarship opportunities available for students and provides assistance with scholarship application completion.
- Field trips, Conferences, & Activities:

Due to major organizational changes that went into effect Summer 2023, Fall 2023 was largely devoted to building relationships with faculty, familiarizing STEM Center staff with the campus and student body, and restructuring the operations and services of the STEM Center and MESA program development. As a result, field trips that were to take place in Spring 2024 were planned in Fall 2023. In Spring 2024, the STEM Center facilitated off-campus field trips to Cal Poly Pomona's College of Science and Engineering Student Research Symposium where 25 students engaged with undergraduate and graduate CPP students presenting their research projects. This field trip also included a tour of Dr. Mercer's cell & molecular biology lab where she shared her research, advised students about seeking research opportunities with faculty, and had two current students share their own experience in her lab. Additionally, 3 MESA students and chaperone Krysten Audibert attended the MESA Student Leadership Retreat in Santa Cruz, CA, where over 125 MESA students from community colleges all over California gathered to build community and participate in workshops focused on academic and personal growth as STEM scholars. Lastly, students attended the Bridge to Connect Job Fair in Garden Grove, CA where they met with local employers and industry leaders and participated in mock interviews.
The STEM Center also participated in extensive on-campus activities and events. This included the following: the STEM Career Fair, monthly "Share Something Sweet" events, Women's History Month events, Ice Cream Social with the Calimesa Lions Club, celebrating Earth Day, Game Day, fuel stations and a pizza party during finals week.

- Counseling: The STEM Center partnered with the Counseling Department to dedicate a counselor to STEM/MESA. In Spring 2024, the counselor dedicated a

total of 102 hours throughout the semester and was available on a weekly basis. Additionally, to increase accessibility and the number of updated educational plans for STEM/MESA students, the counselor facilitated appointments in the STEM Center for an entire week leading up to registration for the upcoming semester. For the Spring 2024 semester, counseling supported 33 student visits in the STEM Center. However, it is likely that additional students checked in with the Counseling Department beforehand, and therefore their visits would not be reflected in the data from the STEM Center's SARS Tracking. As the number of STEM/MESA students continues to grow, the STEM Center will continue to partner with the Counseling Department to meet students' advising needs, as elaborated on in section 4b.

- STEM Internal & External Outreach: The STEM Center participated in numerous outreach events and activities throughout 2023-2024, both on and off campus. Outreach and collaborative efforts will continue to be prioritized moving forward.

In Fall 2023, the center participated in the following:

Internal outreach:

- CHC Roadrunner Rally
- CHC University Transfer Fair, where the center facilitated a transfer and admissions workshop from UC Santa Barbara
- Collaboration with the CHC Tutoring and Career Centers, the College Honors Institute, and EOP&S
- Admissions and Records to implement the MESA application
- Department meetings for Mathematics and Physical and Biological Sciences
- Partnership with the CHC Counseling Department for guided pathways
- Student Services Council
- Club Rush
- Classroom visits by STEM Center staff
- Hosted class visits to the STEM Center, coordinated with faculty

External outreach:

- Collaborations with SBVC's STEM/MESA program
- High School/Adult School Counselor Luncheon
- Yucaipa Water District's Inland Solar Challenge
- Partnership with Redlands Unified School District (RUSD) to plan for the First Annual STEM Summit
- Partnership with CSU San Bernardino and UC Riverside to facilitate summer research opportunities for STEM/MESA students
- Collaboration with UC Riverside School of Medicine to establish the California Medicine Scholars Program (CMSP)

In Spring 2024, the center participated in the following:

Internal outreach:

- Collaboration with the Financial Aid Office and Career, Tutoring, and Transfer Centers
- Club Rush
- Hosted STEM Career Fair

- Coordinated Women's History Month Celebrations, which included the Social Mingle & Gallery Walk, Panel Discussion, and Movie Night
- Partnership with Career Center to utilize LAEP funding for summer research opportunities
- Continued Student Services Council
- Hosted Earth Day activities
- Classroom visits by STEM Center staff
- Hosted class visits to the STEM Center, coordinated with faculty

External outreach:

- Colton Joint Unified School District (CJUSD) STEAM Expo
- Yucaipa Calimesa Joint Unified School District (YCJUSD) Career Fair
- Hosted RUSD STEM Summit
- Hosted Ice Cream Social in partnership with Calimesa Lions Club
- Senior Day which included facilitating a bridge building breakout session that emphasized physics and engineering fundamentals and teamwork
- Partnership with Cal Poly Pomona's College of Science and College of Engineering
- Collaboration with Pennington Designs
- Cal Poly Pomona STEM Network Success Half-Day Conference

- Internship & Research Opportunities: Across Fall 2023 and Spring 2024, the STEM Center established a partnership with CSU San Bernardino and UC Riverside to facilitate research opportunities for students to participate in over summer. This led to 8 STEM/MESA students being accepted into the summer research program, which included opportunities in 5 different labs: astronomy & physics, biological sciences, geological sciences, human health & human ecology, and environmental sciences. Their 8-week research experience took place in Summer 2024.
- Communication: The STEM Center commits to regular communication with students and STEM faculty. Communication is facilitated through the following platform and medias: Discord, Canvas, Starfish, Instagram, Newsletter, classroom visits and STEM Center visits, and emails to faculty.
    - Starfish: Starfish communication began in Spring 2023 to share information about events, workshops, guest speakers, study groups, tutoring, and SI sessions. In Spring 2023, 22 Starfish messages were sent out to students. In Spring 2024, 33 Starfish messages were sent to students.
    - Newsletter: The STEM Center began sending out bi-monthly newsletters in Spring 2024 to highlight upcoming campus events and recap previous ones, STEM current events, and Crafton Hills students who have shared recent accomplishments and achievements. For example, we have highlighted students who presented their research at conferences and participated in local community service opportunities. In January 2024, the newsletter had 911 views and 25 interactions that included clicking on links, buttons, and attachments. In March 2024, the newsletter had 676 views and 115 interactions. In May 2024, the newsletter had 802 views and 12 interactions.

- Instagram: The STEM Center created an Instagram account in Fall 2022. In Fall 2022, the center created 2 posts. In Spring 2023, the center created 17 posts, in Fall 2023, the center created 1 post, and in Spring 2024, the center created 15 posts. Over this time, the Instagram page accumulated 180 followers.
- Discord: In Spring 2024, the STEM Center began to utilize Discord to communicate with MESA students. In Spring 2024, the Discord channel had 15 members. Information was shared to students about general announcements, available campus resources, volunteer opportunities, conferences, and scholarship requirements and applications.
- Classroom visits and STEM Center tours: In Fall 2023, STEM Center staff visited multiple classes to spread awareness of the center and its resources. It also hosted tours in which faculty brought their classes to the STEM Center so that students felt confident in locating the center and seeking its resources.

- MESA Program: In 2023-2024, the MESA program was established and is facilitated through the STEM Center. This program is designed to support first-generation students from disadvantaged and underserved backgrounds who are seeking transfer as a calculus-based STEM major. The culture of the STEM Center is one that is also reflected in MESA. Based on a survey, 83% of MESA students reported that they feel "a strong sense of belonging within the MESA community," "academically supported by the MESA program," and "the MESA program's environment is inclusive." Additionally, 83% reported that they were satisfied with their overall experience in the MESA program.

When asked to provide specific examples of how the MESA program services have benefited them academically, students provided the following qualitative data:

- "The MESA program has helped me with academic supplies, tutoring, support in my classes and other academic endeavors, as well as giving me opportunities to see what my next steps in academia look like by taking me on field trips to places like the Huntington Library and Botanical Gardens, that help me know my biology goals better."
- "It's helped with some academic problems and transfer concerns I've been having. I really enjoy the field trips"
- "Allowing the opportunity to pursue summer research and provide additional funds for academic items"

d. Rubric Item: Describe your Pattern of Service including standard hours of operation, alternative modes and schedules of delivery (e.g.: online, hybrid, early morning, evening services, etc.) and how that service meets the needs of students or clients

The STEM Center is open Monday through Thursday from 8:00 AM to 6:00 PM and on Fridays from 9:00 AM to 2:00 PM. The STEM Center has seen a significant upward trend of student usage. In Fall 2023, the STEM Center tracked 3,099 student visits, which amounted to 5,153 total hours spent between office hours, drop-in studying, counseling appointments, tutoring/study groups, and workshops. In Spring 2024, the STEM Center

tracked 3,723 student visits, which amounted to 6,090 total hours spent between office hours, drop-in studying, counseling appointments, tutoring/study groups, and workshops. To better facilitate asynchronous student access to STEM Center resources, STEM Center staff maintains the Crafton Hills College STEM webpage, a Canvas shell, and social media. Consistent with the efforts made during COVID, all alternative delivery models have continued to be critical and strategic to the digital infrastructure even after returning to in-person instruction, because they facilitate engagement with the STEM Center and its resources.

It is important to note that the anecdote received from STEM Center visitors, including faculty and students, is that the culture is one that is welcoming and inclusive. Additionally, visibility and awareness of the STEM Center has increased across the campus community and students feel confident in finding academic support through the center.

3. External Factors with Significant Impact

Updating this Question is <u>Optional</u> on the 2Yr. and SLO Plans

What external factors have a significant impact on your program? Please include the following as appropriate:

a. Budgetary constraints or opportunities
b. Competition from other institutions
c. Requirements of four-year institutions
d. Requirements imposed by regulations, policies, standards, and other mandates
e. Job market
  i) Requirements of prospective employers
  ii) Developments in the field (both current and future)

a. Budgetary constraints or opportunities

To support STEM students at Crafton Hills College, we have been able to utilize both the STEM Center general fund budget and the MESA program budget. Due to a significant reduction in the STEM Center's general fund budget, we have had to leverage funds from MESA to ensure that students are receiving adequate academic and transfer support as well as opportunities for career exploration and professional development; however, there are limitations for allocating these funds to initiatives that do not directly align with the goals and objectives outlined in the MESA grant agreement with the California Community College Chancellor's Office (CCCCO). For example, prior to MESA, STEM Center non-instructional faculty were funded solely through the STEM Center's general fund budget (object code 1480), but upon receipt of the MESA grant, a significant portion of the funding for these positions has shifted. This is problematic because these non-instructional faculty provide support to all students who visit the STEM Center and are not specifically dedicated to MESA, posing an issue of supplantation.

Another budget constraint for the STEM Center is the limited funds to support student travel and conference. As more students are participating in research and internship opportunities, it is imperative that the STEM Center has general funds to support their educational endeavors that allow them to network among the scientific community outside of the college.

b. Competition from other institutions

The STEM Center does not embrace the idea of competition, as it hinders the cultivation of collaboration with other institutions and negates the centralization of student growth. This is demonstrated by the center's efforts to build strong partnerships with other STEM centers among community colleges within Region F, including San Bernardino Valley College (SBVC), College of the Desert, Riverside City College, Moreno Valley College, Mt. San Jacinto College, Norco College, and Victor Valley College. These efforts also extend to centers at four-year universities, including the Science Success Center at CSUSB, MESA at UCR, and Science Educational Enhancement Services (SEES) at Cal Poly Pomona (CPP).

c. Requirements of four-year institutions

STEM and MESA students are required to have a comprehensive educational plan that has been certified by a counselor. These plans are designed to align with the transfer requirements of the students' intended transfer institution(s).

It important to note that San Bernardino Valley College (SBVC) offers a computer science course, CS130 Discrete Structures (3), that meets the transfer requirements for CPP; the adjacent course offered by Crafton Hills College (CHC) does not meet the transfer requirements of CPP. CPP is a highly desired transfer university for a variety of STEM majors, particularly engineering and computer science and the incongruence with accepted transfer courses poses significant challenges for students.

d. Requirements imposed by regulations, policies, standards, and other mandates

- Equitable Placement, Support, and Completion (AB1705)

An extension of AB705 (2017), which intended to support assessment and placement strategies proven to increase student completion rates and close achievement gaps. This included community colleges maximizing the probability of a student entering and completing transfer-level coursework in English and Math within a one-year timeframe. AB1705 intends to address underlying equity gaps and uneven implementation of AB705 by ensuring strong and equitable placement systems and curricular structures to support completion outcomes.

- Division 7 of Title 3 of the Education Code - Community Colleges: Mathematics, Engineering, Science Achievement Programs (SB444)

An act to add Part 52.8 to the Division 7 of Title 3 that encourages community college districts to establish and implement Mathematics, Engineering, Science Achievement (MESA) programs at community colleges that are directed at identifying students affected by social, economic, and educations disadvantages, increasing the number of eligible students served under MESA programs, and increasing student success in transferring and completing baccalaureate STEM degrees.

e. Job market

i) Requirements of prospective employers

The Inland Empire presents STEM career projections consistent with national trends of diverse STEM career pathways and higher salary ranges compared to non-STEM careers with similar education requirements. The table below outlines this data and provides total job openings among various STEM careers within the San Bernardino and Riverside counties, in which a large majority of our student population resides.

ii) Developments in the field (both current and future)

When considering developments in STEM, it is important to note that this includes a diverse pool of career pathways, hence a seemingly limitless number of developments in the various fields that make up the STEM job economy. There are ever-increasing advances made in fields such as healthcare, aeronautics, data science, and engineering, all lending to a growing job market. An example of one such advancement that was greatly felt on our campus was the shift to distance learning due to the COVID-19 pandemic. The restructuring of workplaces to this remote model resulted in a sizeable growth in the technology job market. With this, we have seen an increase in the number of students interested in and declaring majors such as Computer Science and Computer Information Systems. Additionally, the COVID-19 pandemic illuminated the dire need for healthcare workers, and we therefore saw an increase in the number of students interested in and declaring majors such as Biology and Anatomy/Physiology.

A spreadsheet of data that informed this section can be found in Supporting Documents, titled "STEM Demand-Tool June 2021".

4. Progress on Outcomes Assessment

Updating this Question is Required on 2Yr. Plans and Optional on SLO Plans

Rubric Item: Service Area and Student Learning Outcomes Process.

a. Please summarize Service Area Outcome (SAO) assessment results. Include a discussion of whether or not disproportionate impact (if the data is available) has been identified, and whether the program met its target for each SAO.

b. Please describe any service area improvements you plan to make as a result of the SAO assessment(s), specifically focusing on removing any identified disproportionate impact (if the data is available).

c. What objective(s) or action step(s) will you add to Question 10 as a result of the SAO assessment(s) and to address any identified disproportionate impact (if the data is available)? If none, please explain.

d. If your program has SLOs, please address b and c above in relation to the SLO assessment results.

a. Please summarize Service Area Outcome (SAO) assessment results. Include a discussion of whether or not the program met its target for each SAO.

SAO #1: Students who visit the STEM Center will feel welcome and supported as scholars regardless of their major.

Measurement: Updated POS survey to address the center's climate in relation to students' sense of belonging and evolving needs.

Target: 70% of students who access the STEM Center will report feeling welcome and supported.

Assessment Results Summary: Based on a POS survey administered in Spring 2023, more than 95% of students (n=39) reported that they agree or strongly agree with the statement "I feel welcomed and encouraged by STEM Center staff" and "I am satisfied with the services provided by the STEM Center." Additionally, when prompted to add suggestions and/or comments, students provided the following qualitative feedback:

- "Everyone is super helpful and understanding. Thank you for helping me achieve my goals this semester."

- "[Name] is super helpful, he's willing to help anyone figure anything out! The STEM Center has been a place of refuge for me this semester, thank you for the service."
- "The STEM Center has a wonderful and welcoming team."
- "The STEM Center is a very friendly and comfortable place to study."

Based on the POS survey results, the STEM Center met its target for SAO #1. While we can deduce the STEM Center's operations and practices were successful, we are not able to provide a more detailed summary of the SAO assessment results. This is due to the significant structural and organizational changes that occurred in July 2023, which included a complete turnover of staff. However, we recognize the need for modifying the existing POS survey to collect student feedback regarding satisfaction and effectiveness, which is addressed in section 4b.

SAO # 2: After visiting the STEM Center, students will be familiar with the services and resources available to support their academic achievement.

Measurement: Updated POS survey to include questions related to awareness and familiarity of the services and resources available at the STEM Center.

Target: 70% of students who access the STEM Center will report being aware and familiar.

Assessment Results Summary:

To demonstrate the STEM Center's effectiveness in supporting students' academic achievement, we refer to the STEM Center Academic Success Dashboard, maintained by CHC Research. According to the data, students who accessed the STEM Center in 2021-2022 demonstrated a 77% success rate and 94% completion rate, compared to a 73% success rate and 90% completion rate for students who did not access the STEM Center. We saw the same trend in 2023-2024, but with a significant increase in both success and completion rate in students who accessed the STEM Center. In 2023-2024, students who accessed the STEM Center had an 86% success rate and 96% completion rate, while students who did not access the STEM Center had a 76% success rate and 92% completion rate.

The POS survey administered in Spring 2023 did not include any questions that would assess students' familiarity with services and resources offered by the STEM Center. However, given the increase in student and faculty visits, we may assume a positive correlation with the familiarity of services and resources. In Fall 2023, there were a total of 3,099 student visits to the STEM Center, which amounted to a total of 5,153 hours spent on office hours, drop-in studying, counseling appointments, tutoring services, and workshops. In Spring 2024, these numbers increased to a total of 3,723 total student visits to the STEM Center, amounting to a total of 6,090 hours spent on the previously mentioned reason codes. We can assume that this 19% increase in the number of visits and hours spent in the STEM Center is a result of our efforts to increase awareness of the services and resources available.

In 2023-2024, the STEM Center purchased additional academic resources for students to use, which included an anatomical torso, foot, arm, leg, and hand, molecular kits, mitosis and meiosis display boards, plant and animal cell 3D models, full human skeletons, updated textbooks, and new calculators. These resources are regularly checked out and used by students.

Based on the data available, we feel confident in asserting that the STEM Center met its target for this outcome. However, we recognize the need for administering surveys to collect student feedback regarding satisfaction and effectiveness, which is addressed in section 4b.

SAO #3: The STEM Center prioritizes efforts to connect students with resources that help them make informed decisions related to transfer and career pathways.

Measurement: Updated POS survey to address relevance of and confidence in resources for transfer and career pathways.

Target: 70% of students who access the STEM Center will report that they were connected to resources that were relevant and increased their confidence in making decisions related to transfer and career pathways.

Assessment Results Summary: To measure the success of this SAO assessment, we tracked the relevant resources offered through the STEM Center from Fall 2022 to Spring 2024. In relation to transfer and career pathways, the following workshops were offered:

- Fall 2022
    - Careers in Math, Clinical Research Experience, Science and Art, UC Riverside School of Medicine Pathway Programs
- Spring 2023
    - Let's Talk Transfer, UCR Bourns College of Engineering Workshop, Loma Linda University Nursing & Pharmacy Presentation, Jennifer Laws with Esri, Josh Tavares: Community College to UCLA
- Fall 2023
    - UCSB Admissions

Note: limited workshops were offered due to the transition of staff that occurred July 2023 and focus was predominantly directed towards MESA program development, outreach, and building cross-campus relationships.

- Spring 2024
    - Research Experience for Undergraduates, Resume Building, Financial Literacy, FAFSA, Money Management, How to Talk to Employers, Transfer Readiness

Based on the data available, we feel confident in asserting that the STEM Center met its target for this outcome. However, we recognize the need for administering surveys to collect student feedback regarding satisfaction and effectiveness, which is addressed in section 4b.

SAO #4: The STEM Center demonstrates its commitment to diversity, equity, and inclusion and practices cultural responsiveness particularly in, but not limited to, STEM by building relationships across the campus and in the community.

Measurement: Develop an instrument to measure STEM Center's alignment with the college's mission and vision.

Target: Data from instrument above illustrates at least a 70% alignment between the STEM Center and the college's mission and vision.

Assessment Results Summary: To demonstrate our commitment to diversity, equity, and cultural responsiveness, the STEM Center has built and maintained a variety of relationships across the campus as well as with external constituents. This includes

participation on Student Services Council and the Sexual Assault Awareness Month planning committee, coordination of Women's History Month celebrations, and highlighting Black History Month at the STEM Career Fair. The STEM Center has also established a partnership with the Basic Needs Office to address food insecurity among students visiting the center. The STEM Center has extended efforts to celebrate diversity and spread awareness of various campus DEIA initiatives by including all aforementioned activities and events in the center's bi-monthly newsletter. Lastly, in Spring 2023, the STEM Center began collaborating with Pennington Designs to create a visual representation of diversity in STEM to be installed on the entrance wall of the center. This wall art features a variety of STEM disciplines and highlights many identities that have been historically underrepresented in STEM.
This is a newly developed service area outcome, so our target moving forward Based on the data available, we feel confident in asserting that the STEM Center met its target for this outcome. However, we recognize the need for administering surveys to collect student feedback regarding satisfaction and effectiveness, which is addressed in section 4b.

A spreadsheet of this data, including the DI calculator, can be found in Supporting Documents, titled "STEM Center PPR Dataset".
b. Please describe any service area improvements you plan to make as a result of the SAO assessment(s).
SAO #1: Students who visit the STEM Center will feel welcome and supported as scholars regardless of their major.
We will continue to support all students who visit the STEM Center, ensuring that students are being greeted upon arrival. Additionally, non-instructional faculty are proactive in engaging with students and are available to assist and provide academic support. We will continue to improve upon this by regular communication of expectations to non-instructional faculty and FWS student workers who work in the STEM Center. We will further improve these efforts by updating the current POS survey to include questions that address the center's climate in relation to students' sense of belonging and evolving needs. In addition to a Likert scale, this survey will include an open-ended section for students to make recommendations or address needs that may not have been explicitly included in the Likert scale portion.
SAO #2: After visiting the STEM Center, students will be familiar with the services and resources available to support their academic achievement.
In the beginning of the Fall 2023 semester, STEM Center staff started visiting a variety of STEM classes to share about the services and resources available to students. To supplement these efforts, we also invited STEM faculty to bring their classes to the STEM Center during the first 2-3 weeks of the semester to ensure that students knew where the center was located on campus. To improve upon this SAO, the STEM Center has continued to build relationships across the campus to increase the awareness and confidence to refer students to the STEM Center for academic support. We plan to continue offering class visits and encouraging faculty to bring their students to the STEM Center every semester. To increase awareness of the STEM Center across campus, we improved our communication efforts by implementing a bi-monthly newsletter and expanded our use of

communication platforms to include Canvas, Starfish, Instagram, Discord, and the college's marketing team and website events page. We plan to increase the frequency of postings on these platforms. Additionally, we plan to partner with the Bookstore to utilize their display case and monitor in CCR to advertise for STEM/MESA beginning Fall 2024.
To combat its obscure location and the lack of efficient directional signage, in Spring 2024, the center addressed the need for increased visibility by working with Pennington Designs to create a vibrant window decal that incorporates a list of resources available within the center. The STEM Center plans to have the decal installed in Summer 2024, just in time for the new academic year.

SAO #3: The STEM Center prioritizes efforts to connect students with resources that help them make informed decisions related to transfer and career pathways.

In Spring 2024, the STEM Center partnered with the Financial Aid office to host a series of workshops for students to better understand the financial commitments and options available upon transfer. The center plans to continue hosting such workshops in upcoming semesters. We partnered with the Career Center to host the STEM Career Fair in Spring 2024, which was attended by over 150 students and over 30 employers. Given the positive feedback received from both students and employers, we are planning to make this an annual event. Our partnership with the Career Center also included the utilization of LAEP funding to secure 8 student research positions. Students will be commencing research in Summer 2024. In partnership with the Transfer Center, the STEM Center promoted all campus tours available to students and included campus tours in the list of approved MESA activities to complete on a semesterly basis. After deliberating with the Transfer Center about strategies to continue to increase students' knowledge and understanding of transfer options, the STEM Center plans to incorporate a transfer success plan for students starting Fall 2024. This success plan will include an initial meeting with Transfer Center staff to develop a transfer plan followed by a series of workshops designed to simplify the transfer process with dedicated monthly steps.
Additionally, we plan to continue building partnerships with local four-year universities and businesses to increase research and internship opportunities available to students. These partnerships will assist in improving our efforts to network and invite guest speakers to share their transfer and career pathways. These university partners will include UC Riverside, CSU San Bernardino, Cal Poly Pomona, Cal Baptist University, and Loma Linda University, while local business partners will include Sorenson Engineering, Esri, Bourns Engineering, San Bernardino Museum, TAE, Garner Holt, and water districts.
We have also made intentional efforts to diversify the non-instructional faculty in the STEM Center to reflect and capitalize on their expertise and experiences as they relate to transfer and career pathways. We plan for this to result in a larger variety of workshops, guest speakers, and field trips offered to students.
To improve this SAO, we recognize that strategic planning is needed and plan to do so in Summer 2024. This plan will include a comprehensive timeline, clear objectives for each event and/or program, and more intentional relationships among the involved partners. We also plan to develop and administer a survey to gather student feedback regarding satisfaction and effectiveness.

SAO #4: The STEM Center demonstrates its commitment to diversity, equity, and inclusion and practices cultural responsiveness particularly in, but not limited to, STEM by building relationships across the campus and in the community.

To meet the target of the SAO, the STEM Center has in place the following plans of improvement:

1. We plan to continue active participation on the Student Services Council and planning committees for cultural events, including Hispanic Heritage Month and other campus initiatives to celebrate marginalized populations.
2. We plan to recruit and sponsor students to attend culturally and academically relevant conferences such as the National Convention hosted by the Society of Hispanic Professional Engineers (SHPE) and the NDiSTEM conference hosted by Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), both of which are organizations that support and advance the success of underrepresented students in STEM.
3. We plan to include all the aforementioned efforts in our bi-monthly newsletter, as well as other our other communication platforms.
4. The STEM Center plans to hire additional FWS student workers to encourage peer-to-peer engagement within the STEM Center and provide professional development opportunities for economically disadvantaged students.

c. What objective(s) or action step(s) will you add to Question 10 as a result of the SAO assessment(s)? If none, please explain.

Objective: Increase Pacific Islander/Hawaiian Native student engagement with STEM Center services.

Aligned with: Goal x, Objective x

Action Steps:

1. Campus participation: Join AAPI Heritage Month planning committee.
2. Implement targeted outreach campaigns: Develop and launch workshops, events, and activities specifically aimed at Pacific Islander/Hawaiian Native students to encourage utilization of the STEM Center, and interest and sense of belonging in STEM.

d. If your program has SLOs, please address b and c above in relation to the SLO assessment results.

We have no SLOs for this cycle. However, we plan to update current SAOs and draft SAOs for the next PPR cycle.

5. Unit's Performance on Institutional Quantitative Effectiveness Indicators
Updating this Question is <u>Optional</u> on 2Yr. and SLO Plans

Please discuss your program's performance on each data item below.

a. Non-Instructional Program Effectiveness Evaluation Rubric

i) **Rubric Item**: Describe a significant innovation or enhancement, and the data collected and analyzed that has helped to determine the efficacy of the innovation.

ii) **Rubric Item**: Describe at least three external and internal partnerships that substantially affect the quality of services to students or clients.

a. Non-Instructional Program Effectiveness Evaluation Rubric

i) Rubric Item: Describe a significant innovation or enhancement, and the data collected and analyzed that has helped to determine the efficacy of the innovation.

Beginning in July 2023, a restructuring of the college's instructional divisions resulted in the STEM Center being housed within the SINS Division. This included successful recruitment of a new SINS Dean and a new STEM Center/MESA Director. This shift improved the overall infrastructure of the STEM Center, allowing for intentional focus on the goals and vision of the center as they relate to student success and campus engagement.
Yet another impactful enhancement was the awarding of the MESA grant in 2022-2023. This grant supported the establishment of a MESA program at Crafton Hills College, a program designed to provide academic and transfer support to first-generation, economically disadvantaged students pursuing a calculus-based STEM major. Development of the program began in 2023-2024 and has grown drastically since its inception. The STEM Center has felt the effects of this program by way of increased student traffic, technological improvements, and a greater variety of services available to support student success. Crafton Hills has this dedicated grant funding until 2026-2027, but in September 2023, MESA was codified into California Education Code, ensuring the longevity of this program to support STEM students. To evaluate the effectiveness of the MESA program, we will be working with our research team to develop a satisfaction survey that aligns with the objectives and goals outlined in the grant and plan to administer this on a semesterly basis.

ii) Rubric Item: Describe at least three external and internal partnerships that substantially affect the quality of services to students or clients.

- Tutoring Center: A continued partnership with the Tutoring Center has provided an increase in tutoring services for STEM disciplines. This partnership is valuable because it allows the STEM Center to operate as a learning resource center by providing academic support for students. Additionally, offering tutoring services fulfills an objective of the MESA grant agreement. Tutors are employed by the Tutoring Center and assigned to work in the STEM Center as the STEM Center and Tutoring Center staff determine need. Specific areas of training may be suggested by STEM Center staff and STEM faculty, although the faculty and classified Tutoring Center Coordinators are ultimately responsible for tutor training, hiring, and oversight.
- CHC Counseling: The STEM Center has partnered with the Counseling department to provide access to STEM counseling outside of the Counseling department. The STEM Center provides a dedicated office space for the STEM Counselor. This integration of counseling improves access and awareness of campus resources and allows for a more personalized experience for students, especially for those among special populations. Similar to tutoring services, the offering of dedicated counseling services fulfills an objective outlined in the MESA grant agreement.
- Math Department: A partnership with the math department has proved valuable for increasing the visibility of the center. Members of the department frequently host office hours in the center, along with their department meetings. Their presence in the center offers increased accessibility and builds a sense of community between students and faculty. Additionally, math faculty have provided frequent support in campus events, outreach, and chaperoning field trips.

- UC Riverside: In partnership with UCR School of Medicine, we established the California Medicine Scholars Program (CMSP), a pathway that supports students from community college to medical school. The partnership has lent itself to the recruitment of multiple Crafton Hills College students to receive academic and medical school advising, mentorship with UCR/CSUSB undergraduates and UCR medical students, clinical and research experience, and professional development opportunities. Additionally, in 2023-2024, the STEM Center initiated a partnership with UCR's College of Natural and Agricultural Sciences to support a summer research program for STEM students.
- CSU San Bernardino: Similar to the partnership with UCR, the STEM Center has established a partnership with CSUSB's College of Natural Sciences and the Science Success Center to facilitate summer research and improve matriculation efforts for transferring STEM students.

6. Other Unit-Specific Quantitative and Qualitative Results (Student Services Only) Updating this Question is Optional on 2Yr. and SLO Plans

a. **Rubric Item**: How do your program student demographics relate to the college demographics? What are the discrepancies, and what plan do you have to address any discrepencies? You may use your Vision Aligned Reporting (VAR) data to examine this issue. You may also use the Student Programs dropdown menu within the Completion and Success Dashboard to view data for many student support programs. **Click HERE to view the VAR Dashboard or click HERE to view the Completion and Success Dashboard.**

b. Summarize the results of any quantitative or qualitative measures not provided in any previous question that you have chosen to gauge your program's effectiveness (e.g.: number of transfers, degrees, certificates, student contacts, students serviced, student and faculty satisfaction, equity data, correlation data on the relationship between program participation and student outcomes, Perkin's data, equity data, student research experience, student clubs, etc.). **Please visit the Degrees & Certificates Dashboard to access your program specific data on degrees and certificates.**

c. What improvements/changes have you implemented or do you plan to implement as a result of your analysis of the measures illustrated in 6a and 6b? Include any plans in the action plan (Q10).

a. Rubric Item: How do you program student demographics relate to the college demographis? What are the discrepancies?

The demographic comparison between STEM majors and the CHC student body reveals that in 2023-2024:

- Hispanic students make up 54% of the student population, but 50.4% of the STEM majors;
- Asian students make up 5.7% of the student population, but 10.2% of the STEM majors;
- Black/African American students make up 4.6% of the student population, but only 4.2% of STEM majors;
- White students make up 28.4% of the student population, but make up 27.5% of STEM majors;

- Filipino students make up 0.9% of the student population, but 1.5% of the STEM majors;
- Native American/Alaska Native students make up 0.3% of the student population, but 0.3% of the STEM majors;
- Pacific Islander/Hawaiian Native students make up 0.2% of the student population, but 0.1% of the STEM majors;
- Multiple race students make up 5.3% of the student body, but 5.2% of STEM majors;
- Female students comprise 54.7% of the student population, but only 57.7% of the STEM majors.

Observable shifts and notable trends in demographics between 2019-2020 and 2023-2024 are as follows:

- Females now represent the majority of STEM majors, with an increase of 13.3%
- Hispanic students are disproportionally represented in STEM although they represent a majority of STEM majors due to an increase of 5.4%
- Black/African American students have slight disproportionate representation in STEM, as illustrated by a 0.4% difference between the CHC population and population of STEM students. However, they continue to make up a minority of STEM majors

This suggests that the STEM Center's efforts to improve representation among disproportionately impacted or historically underrepresented groups in STEM have been effective and should remain ongoing.

b. Summarize the results of any quantitative or qualitative measures not provided in any previous question that you have chosen to gauge your program's effectiveness (e.g.: number of transfers, degrees, certificates, student contacts, students serviced, student and faculty satisfaction, equity data, correlation data on the relationship between program participation and student outcomes, Perkin's data, equity data, student research experience, student clubs, etc.). Click HERE to access your program specific data on degrees and certificates.

All quantitative and qualitative data have been included in previous sections. However, we plan to work with IR to develop more instruments to collect data related to points of service, student and faculty satisfaction, effectiveness, and other psychosocial variables.

c. What improvements/changes have you implemented or do you plan to implement as a result of your analysis of the measures illustrated in 6a and 6b?

In Fall 2023, we began to implement a plan to grow the STEM Center's presence across the campus with the intention of reaching more students, especially those from marginalized groups that have been historically underrepresented in STEM. We believe the center's involvement in acknowledging students' unique and intersectional identities through celebrations such as Hispanic Heritage Month, Black History Month, Women's History Month, Sexual Assault Awareness Month, and Asian American & Pacific Islander Heritage Month, among others, have had a significant impact in improving students' sense of belonging and interest in STEM as well as building community among STEM students and faculty. Such efforts will be continued in upcoming semesters and we will be proactive in improving and expanding these efforts.

Upon reviewing the POS survey administered in Spring 2023, it became noticeable that there is a need to improve the targeted constructs to include satisfaction and effectiveness of the services and resources at the STEM Center and students' familiarity with these services and resources. Additionally, an improved survey would also include measurements of sense of belonging, interest, and relevance of received resources.

7. Evaluation

Updating this Question is <u>Optional</u> on 2Yr. and SLO Plans

You have already provided a description and analysis of the program in questions 1-6, please provide an analysis of what is going well/not well and why, in the following areas:

- Alternative modes and schedules of delivery (e.g., early morning, evening services, etc.)
- Innovation and Implementation of best practices
- Efficiency in operations
- Efficiency in resource use
- Staffing
- Participation in shared governance (e.g., do unit members feel they participate effectively in planning and decision-making?)
- Professional development and training
- Group dynamics (e.g., how well do unit members work together?)
- Compliance with applicable mandates

You have already provided a description and analysis of the program in questions 1-6, please provide an analysis of what is going well/not well and why, in the following areas:

Alternative modes and schedules of delivery (e.g.: early morning, evening services, etc.)

As of Fall 2023, the STEM Center has offered consistent and extended operational hours to better meet the needs of students, which includes a consistent faculty presence to provide academic support.

Despite our effort to raise awareness of the STEM Center and its available resources, visibility of the center poses a challenge due to its physical location and lack of directional signage on campus.

Innovation and Implementation of best practices

The STEM Center's holistic approach with students is by far the best practice we have implemented. A holistic student approach in STEM addresses the multi-dimensional needs of students, which is essential for fostering success, engagement, and persistence. By considering the academic, emotional, social, and cultural factors that influence students' experiences, we have been successful in creating a more inclusive environment that empowers students to thrive, build community, and reframe the idea of competition into collaboration. Holistic approaches have proven effective in improving retention and persistence rates, academic and career outcomes, and in developing a deeper sense of belonging among students pursing STEM pathways. Additionally, holistic support systems, as the one implemented through the STEM Center and MESA Program, help students build a sense of scientific identity, which may reinforce their self-efficacy and motivation to persist in their chosen STEM field.

Another best practice that the STEM Center has implemented is connecting students to undergraduate research opportunities. Research experience provides students with hands-on learning opportunities that deepen their understanding of STEM concepts and prepare them for graduate education and careers in STEM fields. More importantly, these opportunities allow students to apply theoretical knowledge in practical, real-world settings, which strengthens their understanding of complex concepts, thus improving their critical thinking and problem-solving skills. Similar to the benefits of a holistic approach, undergraduate research helps students develop a scientific identity, increasing their confidence in their abilities and commitment to STEM, which is especially important for students from underrepresented groups, who may otherwise feel alienated in STEM environments.

Efficiency in resource use

The STEM Center has significantly increased the amount of resources available to both students and faculty. This includes instructional materials and aids such as bone boxes, full skeletons, anatomical figures, molecular kits, and textbooks as well as upgraded technology in the conference rooms. This has allowed for more productive group study sessions and meeting spaces for student clubs and departments.

A challenge for the STEM Center continues to be a lack of funding to support student travel and conference. In Spring 2024, we leveraged support from the Foundation to extend participation in the paid summer research program to non-MESA STEM students. Though summer research is an invaluable experience for students, we cannot rely on the funding from the Foundation in perpetuity.

The STEM Center is home to 12 desktop computers that are available for students. The computers are regularly updated by our Tech Services team, which includes downloading software needed for students to complete coursework. In addition to desktop computers, we used MESA funding to purchase 10 laptops that are available for MESA students to check out on a semesterly basis. With additional funding, the center could extend this resource to STEM students outside of MESA.

With the current Wi-Fi infrastructure of the college, students and staff have experienced difficulty in maintaining internet connection in all of the independent rooms within the STEM Center (study rooms, MESA lounge, and conference rooms) thus limiting the capacity to utilize upgraded technology. This poses a significant challenge in productivity and highlights the need for Wi-Fi extenders throughout the center.

Staffing

STEM Center staffing has improved with the full-time employment of a STEM/MESA Director and administrative staff. Additionally, the center employs 4-7 non-instructional faculty per semester as well as an FWS student worker. Historically, non-instructional support has largely consisted of math faculty, but since Fall 2023, faculty representation has expanded to include the natural sciences in an effort to diversify faculty disciplines, which will be continued in semesters moving forward.

While the staffing has greatly improved in the STEM Center, an issue lies in the funding of non-instructional faculty. A majority of the non-instructional faculty members in the STEM Center are currently funded by the MESA grant, though they provide services to STEM students outside of MESA.

Participation in shared governance (e.g., do unit members feel they participate effectively in planning and decision-making?)
Current staff participate in shared governance and are actively involved in committees, representing both management and CSEA on different campus and district committees, including Student Services Council, Classified Senate, SBCCD Management Association, and One Book One College. STEM Center staff have also participated on hiring committees for positions both within and outside of the SINS Division.
Professional development and training
Staff participate in ongoing professional development opportunities and trainings both on and off campus. In Fall 2023 and Spring 2024, the Director attended the MESA Directors Leadership Institute to develop consistent practices and build community among MESA programs by region. STEM Center staff regularly participate in training and professional development opportunities offered during flex weeks. Additionally, the tutors who tutor in the STEM Center participate in training on a regular basis, including AVID training and group tutoring practices, facilitated by the Tutoring Center.
Group dynamics (e.g., how well do unit members work together?)
The STEM Center has seen recent changes in staffing with the onboarding of a STEM/MESA Director and administrative staff. There is an excellent working relationship among STEM Center staff members, including non-instructional faculty and student workers. Additionally, newly formed relationships between the center and the Tutoring Center, Counseling Department, Transfer Center, College Honors Institute, Student Life, and ORP remain mutually beneficial.
Compliance with applicable mandates
The STEM Center currently complies with all mandates, including, but not limited to, the Workplace Violence Prevention Plan (WVPP), safety inspections, and FERPA regulations.
8. Vision
Updating this Question is Optional on 2Yr. and SLO Plans
a. Tell us your unit's Vision: Where would you like your program to be four years from now? Dream big while considering any upcoming changes (e.g.: new buildings, growth, changes to the service area, etc.).
b. Alignment with the college Vision: **Rubric Item** (Vision Alignment): The Vision of Crafton Hills College is to empower the people who study here, the people who work here, and the people who live in our community through education, engagement, and innovation. **In what ways does your program advance the vision of the college?**
a. Tell us your unit's Vision: Where would you like your program to be four years from now? Dream big while considering any upcoming changes (e.g.: new buildings, growth, changes to the service area, etc.).
Vision
Our vision for the STEM Center goes beyond traditional instruction support to position it as a central space on campus where all students, particularly STEM students, can build community, find mentorship, and receive holistic support. This vision will allow us to continue to create a welcoming and inclusive environment that fosters both academic and personal growth, empowering students to feel connected and supported throughout their STEM journey at Crafton. This vision would take shape with the following:

1. Increased Space: The STEM Center will offer a variety of study, collaboration, and social spaces to encourage students to gather and work comfortably in the center. This includes access to resources like computers, lab equipment, study areas, and innovation spaces that make the center a functional and welcoming part of students' daily lives. As the program continues to grow, meeting these demands will require additional space, so in 4 years, we see the STEM Center expanding to include CNTL-237 and CNTL-238. We see this as a reasonable expansion and utilization of proximal space due to the current construction of a new instructional building and the repurposing of the current LRC to include more classrooms.
2. Community-Building Initiatives: The STEM Center will host regular events, such as student-led seminars, study groups, and social gatherings, that encourage peer-to-peer connections and mentorship across different levels of experience. These gatherings will build a strong sense of community where students feel they belong and can share experiences and advice.
3. Dedicated Mentorship Program(s): The STEM Center will prioritize implementing a mentorship program that pairs students with faculty, professionals, and peer mentors to create a support system that extends beyond academic instruction. This support could include professional guidance, help with navigating challenges, and exposure to diverse STEM pathways. Mentorship programs can also connect students to career development resources, including internships, research opportunities, and graduate school preparation.
4. Holistic Student Support: Expanding resources to include counseling, academic advising, and workshops on personal development topics (time management, stress management, and mental wellness) would show a commitment to supporting students as whole individuals. Collaborating with Student Services would help integrate these services within the STEM Center, making is easy for students to access them in a familiar space.
5. Access to High-Impact Learning Experiences: Offering structured research opportunities, internship support, and interdisciplinary projects in the STEM Center would allow students to apply classroom learning to real-world scenarios. These hands-on experiences help build confidence, enrich academic learning, and increase student engagement within the STEM community.
6. Augmented STEM Center General Fund Budget: In order to transform vision into action, the STEM Center General Fund Budget will be augmented in the following ways:

- Restore the non-instructional salary and take into consideration the recent salary increases for adjunct faculty. This would amount to $35,000, to supplement faculty support in the center in the amount of $17,500 per semester.
- Increase the current travel and conference funds for non-MESA STEM students from $3,500 to $7,000 to allow for 2 students per semester to partake in STEM-related conferences and/or present research.

b. Alignment with the college Vision: Rubric Item (Vision Alignment): The Vision of Crafton Hills College is to be the college of choice for students who seek deep

learning, personal growth, a supportive community, and a beautiful collegiate setting.
In what ways does your program advance the vision of the college?
This vision for a STEM Center aligns seamlessly with the college's broader vision by fostering empowerment through holistic support, community engagement, and an innovative approach to education.

1. Empowerment through education: By creating a STEM Center that extends beyond instructional support, the Center aligns with the college's goal to empower students through education. By offering structured mentorship, research opportunities, and career development resources, the STEM Center not only strengthens academic learning but also provides students with tools for lifelong success. This aligns with the college's commitment to empowering students to become skilled, confident professionals and leaders.
2. Community engagement: The STEM Center's vision to serve as a gathering space for community-building initiatives supports the college's dedication to engaging everyone connected to it, including students, faculty, staff, and the broader local community. By offering events like career fairs, outreach programs, and community lectures or workshops, the STEM Center can connect students with community members, professionals, and alumni, thereby fostering a vibrant, inclusive community. This engagement broadens learning beyond the classroom and allows students to see their role in a larger, connected society.
3. Innovation and practical application: Through hands-on learning experiences like research and interdisciplinary projects, the STEM Center becomes a place where students can be innovative and creative in collaboration with their peers. This emphasis on experiential learning supports the college's mission to drive innovation. By connecting students with resources and technology and encouraging problem-solving in real-world contexts, the STEM Center positions students to make impactful contributions both during their studies and in their future careers.
4. Holistic support: Providing spaces for mentorship, wellness resources, and an inclusive environment demonstrates a commitment to nurturing the whole person, which empowers both students and staff. This alignment with the college's focus on empowering all who study and work there makes the STEM Center a foundational part of the institution's supportive ecosystem, helping students, faculty, and staff alike grow and succeed in an environment that values their well-being.

9. Progress on Prior Goals
Updating this Question is Optional on 2Yr. and SLO Plans
Briefly summarize the progress your unit has made in meeting the goals and objectives identified in your last Four-Year Action Plan.

- **1 - Goal - a2460f8f-4682-4d6c-b90a-fdc99b596332**

Priority Rank:
0
Objectives:

- **1.1 - Objective - Improve recruitment and outreach efforts at Crafton Hills College and within the local community.**

Priority Rank:

1
Original Start Date:
07/01/2024
Original End Date:
06/30/2028
Revised Start Date:
07/01/2024
Revised End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Strategic Direction (Goal):
1. Increase Student Enrollment
Impact Type:
District Wide
Institutional Learning Outcome:
-- Pick One --
Actions/Activities:

- **1.1.a1 - IERP Research Requests**

To help achieve this goal, the STEM Center will partner with IERP to request enrollment reports of STEM majors to intentionally connect students to the STEM Center and its resources, and recruit students into the MESA Program.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **1.1.a2 - Campus Events**

The STEM Center will facilitate and participate in campus events such as the RUSD STEM Summit, STEM Career Fair, guest speakers, and student panels with the goal of enhancing recruitment and outreach initiatives at Crafton Hills College and in the surrounding community. These events will not only highlight the diverse pathways of various STEM disciplines and provide insight into resources designed to support students in their journey to success as STEM students at Crafton.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:

Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **1.1.a3 - K-12 Partnerships**

Knowing the value of partnerships with our local K-12 schools, the STEM Center will actively participate in K-12 events, such as Career Days, STEM Fairs ,and the STEM Summit at Crafton Hills College.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **1.1.a4 - Mentorship Program**

The STEM Center would like to establish a robust mentorship program within the next academic year. Research of successful mentorship programs and methods of implementation is currently underway.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **2 - Goal - 27bbd631-8954-4250-9fdc-8325e553688f**

Priority Rank:
2
Objectives:

- **2.1 - Objective - Foster an inclusive environment rooted in community and collaboration that increases students' sense of belonging and interest in STEM, with particular emphasis on students from groups that have been historically underrepresented in STEM. This includes students who identify as Black/African, Hispanic/Latinx, Native American/Alaska Native, Pacific Islander/Hawaiian Native, women, individuals within the LGBTQiA+ community, and persons with disabilities.**

Priority Rank:
2
Original Start Date:
07/01/2024
Original End Date:
06/30/2028
Revised Start Date:
07/01/2024
Revised End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Strategic Direction (Goal):
2. Engage in Practices that Prioritize and Promote Inclusivity, Equity, Anti-Racism, and Human Sustainability
Impact Type:
Site
Institutional Learning Outcome:
-- Pick One --
Actions/Activities:

- **2.1.a1 - AAPI Engagement**

Increase Pacific Islander/Hawaiian Native student engagement with STEM Center services by performing the following:

- Campus Participation: Join AAPI Heritage Month planning committee.
- Implement Targeted Outreach Campaigns: Develop and launch workshops, events, and activities specifically aimed at Pacific Islander/Hawaiian Native students to encourage utilization of the STEM Center and interest and sense of belonging in STEM.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **2.1.a2 - Cultural Responsiveness**

THE STEM Center will maintain its participation in cross-campus collaborations to celebrate diversity. These initiatives will focus on raising awareness about the various DEI efforts taking place across the campus. The center will aim to continue to create inclusive

events that highlight the unique perspectives and contributions of STEM students, faculty, and leaders, promoting equity and inclusion within our academic community.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **2.1.a3 - Communication**

The STEM Center will demonstrate intentionality with its communication tactics and will increase frequency of the use of its communication platforms (Starfish, Canvas, social medica, and newsletters) to highlight the campus' DEIA initiatives. This includes promoting cultural celebrations and highlighting diverse representation in STEM, emphasizing the achievements and contributions made by groups historically underrepresented in STEM.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **3 - Goal - 801b447a-17b0-4d3a-b1fd-8a8031aa5c3f**

Priority Rank:
2
Objectives:

- **3.1 - Objective - Enhance the STEM Center's capacity to serve students.**

Priority Rank:
3
Original Start Date:
07/01/2024
Original End Date:
06/30/2028
Revised Start Date:
07/01/2024
Revised End Date:
06/30/2028
Responsible Person:

Krysten Audibert

Strategic Direction (Goal):

3. Increase Student Success and Equity

Impact Type:

Only Students

Institutional Learning Outcome:

-- Pick One --

Resource Requests:

- **3.1.r1 - Augment STEM Center non-instructional faculty budget**

Description

Rationale

The STEM Center has seen a tremendous growth in student traffic that is largely attributed to the presence and involvement of non-instructional faculty in the center. Because of their participation in providing academic support, facilitating workshops, and engaging in campus community events, the non-instructional faculty has proven to be an essential aspect of the center's operations. Increasing the STEM Center's non-instructional faculty budget would allow the center to broaden the disciplines and fields of expertise represented in the center. Currently, the MESA program supplements a majority of the cost for non-instructional faculty support. However, prior to being awarded the MESA grant, this cost was covered by the STEM Center's general fund. The non-instructional faculty in the STEM Center provide support for all students. To calculate the expenses, we used the following numbers: non-instructional faculty work 40 hours per week in the center for 16 weeks per semester at $57.89 per hour, which amounts to $37,049.60 per semester. This does not include additional non-instructional contracts for faculty support outside of the STEM Center. Ideally, the cost of the non-instructional faculty members would be split evenly between the STEM Center general fund budget and the MESA grant instead of being covered entirely by the MESA grant as the non-instructional faculty provide support to all students in the STEM Center.

Resource Type:

Ongoing

Expenditure Category:

Non-Instruction Hourly (1480)

Funded:

No

Funding Source:

First Year Cost/Savings:

$18,524.80/$0.00

- **3.1.r2 - Increase STEM Center's travel and conference funds available for students.**

Description

Rationale

Part of the STEM Center's recent growth included the establishment of partnerships with local universities to accommodate, support, and advise our students in their labs as they work on research projects. This has led to exciting opportunities for our

students, including opportunities to participate in conferences to present their research. Currently, the STEM Center general fund budget can sponsor approximately 2 non-MESA students per semester to attend these events. Our goal is to increase this number to 4 students per semester, enabling more students to exhibit their research.
Resource Type:
Ongoing
Expenditure Category:
Other Expenses & Fees (5809)
Funded:
No
Funding Source:
First Year Cost/Savings:
$14,000.00/$0.00

- **3.1.r3 - STEM Center Laptops**

Description
Rationale
The STEM Center does not presently have laptops available for non-MESA student use. However, we would like to be able to support students by improving their access to technology. We are actively working on developing a system that will enable non-MESA students to check out laptops from the STEM Center. This program would embody our commitment to fostering an inclusive academic community where every student has the tools they need to succeedthis would include the ability to check out laptops from the STEM Center for students to use. Ideally, the STEM Center would like to have 10 laptops available for student use. Please reference the attached document titled "Dell Laptop Quote" to understand the First Year Cost figure provided.
Resource Type:
One-time
Expenditure Category:
Computer & Information Technology Equipment (6420)
Funded:
No
Funding Source:
First Year Cost/Savings:
$14,058.20/$0.00

- **3.1.r4 - Wi-Fi Extenders**

Description
Rationale
We have received feedback from students indicating that they are unable to connect to Wi-Fi in specific areas of the STEM Center: CNTL-220, CNTL-221, CNTL-233, and CNTL-234. The Wi-Fi is unavailable in these study rooms when the doors are closed. These rooms are designed to provide quiet spaces for students to focus on their studies. As a result, students face the dilemma of either keeping the doors open and dealing with outside noise or avoiding these spaces entirely. We would like to collaborate with the IT team to install

Wi-Fi range extenders throughout the center. This enhancement would encourage students to utilize all areas of the STEM Center without worrying about their device connectivity.

Resource Type:
One-time
Expenditure Category:
Non-Instructional Supplies (4500)
Funded:
No
Funding Source:
First Year Cost/Savings:
$1,000.00/$0.00
Actions/Activities:

- **3.1.a1 - Technology & Academic Resources**

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **3.1.a2 - Non-Instructional Faculty**

The STEM Center would like to diversify the backgrounds and areas of expertise amongst the non-instructional STEM Center faculty. This action includes recruiting faculty from various STEM departments and will result in a greater sense of collaboration and support among the campus STEM community. Additionally, such divsersity among faculty will greater ensure that students of different interests and backgrounds see a reflection of their own identities, inspiring them to pursue their unique STEM fields and feel more included in the academic community.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:

- **3.1.a3 - Increase research and internship opportunities for students.**

The STEM Center would like to continue building partnerships with local universities and industry leaders to support and encourage participation in research and internships. Participating in both research and internship experiences help students apply their classroom academics to rpractical scenarios. This invaluable experience affords students the opportunity to engage with 4-year university instructors, graduate students, as well as undergraduate students, allowing them to add to their network of peers and mentors.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Status Code:
-- Pick One --
Progress Description:
Measurements/Documentation of Progress:
10. Four-Year Action Plan (Goals, Objectives, Resources, and Actions)
Updating this Question is Required on 2Yr. Plans and Optional on SLO Plans
Rubric Item: Reflect on your responses to all the previous questions. Complete the Four-Year Action Plan, entering the specific program goals (goal rubric) and objectives (objective rubric) you have formulated to maintain or enhance your strengths, or to address identified weaknesses. **In writing your objectives and developing your resource requests, take into account student learning and program assessment results**. Assign an overall priority to each goal and each objective. In addition, enter any actions and/or resources required to achieve each objective. (Click here to see a definition of goals, objectives, actions, and how they work together.)

- **1 - Goal - a2460f8f-4682-4d6c-b90a-fdc99b596332**

Priority Rank:
1
Objectives:

- **1.1 - Objective - Improve recruitment and outreach efforts at Crafton Hills College and within the local community.**

Priority Rank:
1
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Strategic Direction (Goal):
1. Increase Student Enrollment
Impact Type:
District Wide

Institutional Learning Outcome:
4. Society and Culture
Actions/Activities:

- **1.1.a1 - IERP Research Requests**

To help achieve this goal, the STEM Center will partner with IERP to request enrollment reports of STEM majors to intentionally connect students to the STEM Center and its resources, and recruit students into the MESA Program.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert

- **1.1.a2 - Campus Events**

The STEM Center will facilitate and participate in campus events such as the RUSD STEM Summit, STEM Career Fair, guest speakers, and student panels with the goal of enhancing recruitment and outreach initiatives at Crafton Hills College and in the surrounding community. These events will not only highlight the diverse pathways of various STEM disciplines and provide insight into resources designed to support students in their journey to success as STEM students at Crafton.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert

- **1.1.a3 - K-12 Partnerships**

Knowing the value of partnerships with our local K-12 schools, the STEM Center will actively participate in K-12 events, such as Career Days, STEM Fairs ,and the STEM Summit at Crafton Hills College.
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert

- **1.1.a4 - Mentorship Program**

The STEM Center would like to establish a robust mentorship program within the next academic year. Research of successful mentorship programs and methods of implementation is currently underway.
Start Date:
07/01/2024
End Date:
06/30/2028

Responsible Person:
Krysten Audibert

- **2 - Goal - 27bbd631-8954-4250-9fdc-8325e553688f**

Priority Rank:
2
Objectives:

- **2.1 - Objective - Foster an inclusive environment rooted in community and collaboration that increases students' sense of belonging and interest in STEM, with particular emphasis on students from groups that have been historically underrepresented in STEM. This includes students who identify as Black/African, Hispanic/Latinx, Native American/Alaska Native, Pacific Islander/Hawaiian Native, women, individuals within the LGBTQiA+ community, and persons with disabilities.**

Priority Rank:
2
Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert
Strategic Direction (Goal):
2. Engage in Practices that Prioritize and Promote Inclusivity, Equity, Anti-Racism, and Human Sustainability
Impact Type:
Site
Institutional Learning Outcome:
4. Society and Culture
Actions/Activities:

- **2.1.a1 - AAPI Engagement**

Increase Pacific Islander/Hawaiian Native student engagement with STEM Center services by performing the following:

- Campus Participation: Join AAPI Heritage Month planning committee.
- Implement Targeted Outreach Campaigns: Develop and launch workshops, events, and activities specifically aimed at Pacific Islander/Hawaiian Native students to encourage utilization of the STEM Center and interest and sense of belonging in STEM.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:

Krysten Audibert

- **2.1.a2 - Cultural Responsiveness**

THE STEM Center will maintain its participation in cross-campus collaborations to celebrate diversity. These initiatives will focus on raising awareness about the various DEI efforts taking place across the campus. The center will aim to continue to create inclusive events that highlight the unique perspectives and contributions of STEM students, faculty, and leaders, promoting equity and inclusion within our academic community.

Start Date:

07/01/2024

End Date:

06/30/2028

Responsible Person:

Krysten Audibert

- **2.1.a3 - Communication**

The STEM Center will demonstrate intentionality with its communication tactics and will increase frequency of the use of its communication platforms (Starfish, Canvas, social medica, and newsletters) to highlight the campus' DEIA initiatives. This includes promoting cultural celebrations and highlighting diverse representation in STEM, emphasizing the achievements and contributions made by groups historically underrepresented in STEM.

Start Date:

07/01/2024

End Date:

06/30/2028

Responsible Person:

Krysten Audibert

- **3 - Goal - 801b447a-17b0-4d3a-b1fd-8a8031aa5c3f**

Priority Rank:

3

Objectives:

- **3.1 - Objective - Enhance the STEM Center's capacity to serve students.**

Priority Rank:

3

Start Date:

07/01/2024

End Date:

06/30/2028

Responsible Person:

Krysten Audibert

Strategic Direction (Goal):

3. Increase Student Success and Equity

Impact Type:

Only Students

Institutional Learning Outcome:

Not Applicable

Resource Requests:

- **3.1.r1 - Augment STEM Center non-instructional faculty budget**

Description

Rationale

The STEM Center has seen a tremendous growth in student traffic that is largely attributed to the presence and involvement of non-instructional faculty in the center. Because of their participation in providing academic support, facilitating workshops, and engaging in campus community events, the non-instructional faculty has proven to be an essential aspect of the center's operations. Increasing the STEM Center's non-instructional faculty budget would allow the center to broaden the disciplines and fields of expertise represented in the center. Currently, the MESA program supplements a majority of the cost for non-instructional faculty support. However, prior to being awarded the MESA grant, this cost was covered by the STEM Center's general fund. The non-instructional faculty in the STEM Center provide support for all students. To calculate the expenses, we used the following numbers: non-instructional faculty work 40 hours per week in the center for 16 weeks per semester at $57.89 per hour, which amounts to $37,049.60 per semester. This does not include additional non-instructional contracts for faculty support outside of the STEM Center. Ideally, the cost of the non-instructional faculty members would be split evenly between the STEM Center general fund budget and the MESA grant instead of being covered entirely by the MESA grant as the non-instructional faculty provide support to all students in the STEM Center.

Resource Type:

Ongoing

Expenditure Category:

Non-Instruction Hourly (1480)

First Year Cost/Savings:

$18,524.80/$0.00

- **3.1.r2 - Increase STEM Center's travel and conference funds available for students.**

Description

Rationale

Part of the STEM Center's recent growth included the establishment of partnerships with local universities to accommodate, support, and advise our students in their labs as they work on research projects. This has led to exciting opportunities for our students, including opportunities to participate in conferences to present their research. Currently, the STEM Center general fund budget can sponsor approximately 2 non-MESA students per semester to attend these events. Our goal is to increase this number to 4 students per semester, enabling more students to exhibit their research.

Resource Type:

Ongoing

Expenditure Category:

Other Expenses & Fees (5809)

First Year Cost/Savings:

$14,000.00/$0.00

- **3.1.r3 - STEM Center Laptops**

Description

Rationale

The STEM Center does not presently have laptops available for non-MESA student use. However, we would like to be able to support students by improving their access to technology. We are actively working on developing a system that will enable non-MESA students to check out laptops from the STEM Center. This program would embody our commitment to fostering an inclusive academic community where every student has the tools they need to succeedthis would include the ability to check out laptops from the STEM Center for students to use. Ideally, the STEM Center would like to have 10 laptops available for student use. Please reference the attached document titled "Dell Laptop Quote" to understand the First Year Cost figure provided.

Resource Type:

One-time

Expenditure Category:

Computer & Information Technology Equipment (6420)

First Year Cost/Savings:

$14,058.20/$0.00

- **3.1.r4 - Wi-Fi Extenders**

Description

Rationale

We have received feedback from students indicating that they are unable to connect to Wi-Fi in specific areas of the STEM Center: CNTL-220, CNTL-221, CNTL-233, and CNTL-234. The Wi-Fi is unavailable in these study rooms when the doors are closed. These rooms are designed to provide quiet spaces for students to focus on their studies. As a result, students face the dilemma of either keeping the doors open and dealing with outside noise or avoiding these spaces entirely. We would like to collaborate with the IT team to install Wi-Fi range extenders throughout the center. This enhancement would encourage students to utilize all areas of the STEM Center without worrying about their device connectivity.

Resource Type:

One-time

Expenditure Category:

Non-Instructional Supplies (4500)

First Year Cost/Savings:

$1,000.00/$0.00

Actions/Activities:

- **3.1.a1 - Technology & Academic Resources**

Start Date:

07/01/2024

End Date:

06/30/2028

Responsible Person:

Krysten Audibert

- **3.1.a2 - Non-Instructional Faculty**

The STEM Center would like to diversify the backgrounds and areas of expertise amongst the non-instructional STEM Center faculty. This action includes recruiting faculty from various STEM departments and will result in a greater sense of collaboration and support among the campus STEM community. Additionally, such divsersity among faculty will greater ensure that students of different interests and backgrounds see a reflection of their own identities, inspiring them to pursue their unique STEM fields and feel more included in the academic community.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert

- **3.1.a3 - Increase research and internship opportunities for students.**

The STEM Center would like to continue building partnerships with local universities and industry leaders to support and encourage participation in research and internships. Participating in both research and internship experiences help students apply their classroom academics to rpractical scenarios. This invaluable experience affords students the opportunity to engage with 4-year university instructors, graduate students, as well as undergraduate students, allowing them to add to their network of peers and mentors.

Start Date:
07/01/2024
End Date:
06/30/2028
Responsible Person:
Krysten Audibert

11. Comments

This space is provided for participants and managers to make additional comments. Comments are not required.

There are no comments for this plan.

12. Supporting

This question is for attaching supplemental materials. Supporting documents are not required.

- RRN 3234 STEM Majors and CHC Student Demographics AY 2020 2021 and 2023 2024 Final.xlsx
- STEM Center PPR Dataset.xlsx
- Dell Laptop Quote.pdf
- STEM Center POS Survey Results6-23.pdf
- STEM Demand-Tool June2021.xlsm