

1. Assessment Plan - Three Column



PIE - Natural Sciences: STEM Unit PIE

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>1. Where We Make an Impact: Closing the Loop on Goals and Resources</i>
<p>Provide quality programs - Offer adequate academic support for STEM gate keeper courses per sections offered.</p> <p>Status: Active</p> <p>Goal Year(s): 2018-19, 2019-20, 2020-21</p>	<p>Request - Full Funding Requested - Coaches in the STEM center for targeted courses: either STEM entry level courses with high failure rates or gatekeeper courses into STEM pathways.</p> <p>*Describe Plans & Activities Supported (Justification of Need): Academic support provided through coaching: Coaching, involves peer mentoring with students who have highly successful STEM knowledge and habits. Coaching places an emphasis on academic achievement and overall student success in addition to strategies/ approaches/ tools to study specific STEM content. The STEM coaches support students at specific times in the STEM center; and peer cohorts are built around a coach and a target class student population. To fully support our STEM students, we need to staff coaching sufficiently. It is essential to have an adequate ratio of coached courses to total sections of that course offered in order to support STEM success outcomes.</p> <p>*Lead: Beta Meyer</p> <p>What would success look like and</p>	

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how would you measure it?: STEM students in coaching versus STEM students not in coaching per subject and by term.

Type of Request: STAFFING: Requests for permanent employee positions or temporary/hourly employees.

Planning Unit Priority: High

On-Going Funding Requested (if applicable): 75000

Related Documents:
[STEM.success.2017-18.xlsx](#)

Persistence - To increase persistence of STEM students
Status: Active
Goal Year(s): 2018-19, 2019-20, 2020-21

Request - Full Funding Requested - Full time Program Specialist staffing in STEM center while the center operates.

***Describe Plans & Activities Supported (Justification of Need):** Program specialists are required to provide necessary staffing and support to STEM center activities and services during operational hours, which are M T W Th 9 AM to 9 PM and Friday 9 AM to 5 PM. These hours are required, as we have STEM classes M T W Th F Sa, and students need a space to study with their peers and coaches and models/ slides/ other class resources. We find that students come into the center from other campus areas after those area close for the day. We need staffing to keep the doors open and provide services to students, such as scheduling counseling appointments, and checking out equipment to students for in-center use. Program specialists also support coordination

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of STEM center events, from marketing, enrollment, and scheduling. Program specialists also assist in inter-campus communication of STEM events and services.

***Lead:** Dr. James Reed

What would success look like and how would you measure it?: STEM center use would be correlated with increased persistence in STEM pathways or courses. We already see that students who use the STEM center more than three hours are more likely to persist in STEM courses.

Type of Request: STAFFING: Requests for permanent employee positions or temporary/hourly employees.

Planning Unit Priority: High

On-Going Funding Requested (if applicable): 80000

Related Documents:
[Stem.persistence.2017-18.xlsx](#)

STEM Inreach - To increase STEM experiences and mentorship to students campus-wide.

Status: Active

Goal Year(s): 2018-19, 2019-20, 2020-21

Request - Full Funding Requested - Increased and ADA accessible STEM center space.

***Describe Plans & Activities Supported (Justification of Need):** STEM center space is limited; a larger space will allow us to perform multiple types of activities, such as student study space, student coaching, and student engagement/interaction activities without stopping other activities. The STEM center would like to continuously remain open for student study while performing other functions. The

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STEM center has been at capacity many times during the semester. Most importantly, the facility is not completely ADA accessible. We are on floor 3 of a building where the only access is via a single elevator or stairs. When the elevator is down, there is NO ADA access.

Planned activities to run simultaneously with student study are: Workshops, speaker series, STEM field trips, STEM on-campus publicity (tables, student events), Pi (3/14) day celebration.

Activities are designed to provide the following types of academic support, mentoring, and exposures:

1. academic planning- learning to STEM,
2. academic support- resume, cv and internship/ summer research application support,
3. workshops on specific STEM topics
4. workshops or panels with STEM professionals
5. informal meetings with STEM mentors or professionals
6. STEM engagement opportunities on campus (tabling, inreach to centers, Pi Day in STEM center)
7. STEM clubs and organizations - information disbursement to STEM community
8. End of year STEM celebrations- transfer/ graduation
9. STEM center dissemination of campus STEM-related activities and information

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10. STEM faculty visibility in STEM center

11. STEM field trips

***Lead:** Dr. James Reed and Dr. Beta Meyer

What would success look like and how would you measure it?: Ability to hold more simultaneous activities. Ability to increase current offerings. Ability to service students with wheelchair and mobility restrictions.

Type of Request: FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.

Planning Unit Priority: High

One-Time Funding Requested (if applicable): 700000

Related Documents:

[Boot camp 2 W 2019.jpg](#)

[Boot camp W2019.jpg](#)

[CSUF RAISE field trip April 2019.jpg](#)

[Kepler Dinner.PNG](#)

[Mountie Mentor Women in STEM.jpg](#)

[RAISE interview workshop.jpg](#)

[STEM.center.use1.jpg](#)

[STEM.center.use2.jpg](#)

[STEM.center.use3.jpg](#)

[STEM.center.use4.jpg](#)

[STEM.center.use5.jpg](#)

[Women in Science 2.jpg](#)

[Women in Science.jpg](#)

Request - Full Funding Requested -

Funds to provide food for STEM events, and for field trips to STEM locations allowing interaction with

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STEM professionals (\$20,000)

***Describe Plans & Activities**

Supported (Justification of Need):

End of year STEM celebrations (transfer, graduation). STEM field trips to industry and other STEM engagement activities (JPL, Science center, etc).

***Lead:** Dr. James Reed and Dr. Beta Meyer

What would success look like and how would you measure it?:

Attendance at event (graduation celebration, field trip), exit survey showing satisfaction with program and STEM experience.

Type of Request: MARKETING:

Requests for services in the areas of graphic design, news, and photography, posting information, communication and social media.

Planning Unit Priority: Medium

On-Going Funding Requested (if applicable): 20000

Related Documents:

[CSUF RAISE field trip April 2019.jpg](#)

[Kepler Dinner.PNG](#)

[Mountie Mentor Women in STEM.jpg](#)

[Women in Science 2.jpg](#)

[Women in Science.jpg](#)

Request - Full Funding Requested -

Funds for STEM promotional/ branding materials/ advertising to increase visibility of STEM student activities (robotics, research, clubs) and STEM major pathways. (\$5000)

***Describe Plans & Activities**

Supported (Justification of Need):

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Materials that demonstrate STEM achievements, experiences and opportunities to increase visibility of these to all STEM students and students considering STEM on campus. Materials can also be used to accomplish part of our Outreach goals; see Outreach.

***Lead:** Dr. James Reed and Dr. Beta Meyer

What would success look like and how would you measure it?:

Documentation of campus student participation on STEM related experiences and activities. Capability to peer mentor incoming and newer STEM students, Materials showing student success in STEM can be disseminated across campus to Equity centers and to students at tabling events and to Division chairs as well as to incoming students (see Outreach goal #1; funding here will support part of that goal).

Success: Goal to have documentation annually that can be used to show great STEM experiences our students have in STEM distributed campus wide and for recruiting purposes.

Type of Request: MARKETING: Requests for services in the areas of graphic design, news, and photography, posting information, communication and social media.

Planning Unit Priority: High
On-Going Funding Requested (if applicable): 5000

Request - Full Funding Requested -
 We need more tables and chairs for student study. We need new lounge

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furniture for students eating or relaxing. We need new cabinetry and storage space for models, texts, and office equipment.

***Describe Plans & Activities**

Supported (Justification of Need):

Our student area was filled with old recycled equipment for storage, student seating and table surfaces from the start. We continue to acquire discarded salvage seating, tables, and shelving. Most was discarded for a reason, and the total is insufficient to completely satisfy the needs of the students and staff in the STEM center. We plan to have furniture that can support up to 100 students at a time, and tables and chairs that are safe and do not break. We plan to have shelving and storage adequate to hold all of our resources and academic materials. We plan to have safe and adequate study apces when these changes are made.

***Lead:** Dr. James Reed

What would success look like and how would you measure it?:

Ability to seat up to 100 simultaneously with writing and study space. Ability to store all of our academic resources and STEM center materials.

Type of Request: NON

INSTRUCTIONAL EQUIPMENT:

Tangible property with useful life of more than one year, other than land or buildings improvements, equal and over \$500 per individual item. Used for administrative or non-instructional purposes.

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Planning Unit Priority: High
One-Time Funding Requested (if applicable): 30000

STEM Outreach - Increase awareness of Mt.SAC STEM pathways at our feeder high schools. Increase awareness of our STEM center, resources and pathways in students entering Mt.SAC.
Status: Active
Goal Year(s): 2019-20, 2020-21

Request - Partial Funding Requested
 - Video to describe the various Mt.SAC STEM pathways and
***Describe Plans & Activities Supported (Justification of Need):**
 Communications with high school counselors about STEM pathways. Work with high school outreach to determine the most effective means of reaching and recruiting students into our STEM pathways. Work with STEM departments to determine what to highlight.
***Lead:** James Reed
What would success look like and how would you measure it?:
 Successful production of a video that highlights Mt. SAC STEM pathways. Successful linkage of the video to the STEM website. Use of the video at STEP and at local high school outreach. Co-programming with high school outreach to inform of STEM opportunities.
Type of Request: MARKETING:
 Requests for services in the areas of graphic design, news, and photography, posting information, communication and social media.
Planning Unit Priority: Medium
One-Time Funding Requested (if applicable): 1000