GAVILAN COLLEGE

Research, Planning, and Institutional Effectiveness

Program Integrated Planning and Review

Instruction

Program Name:	STEM Center
Academic Year:	2019/20

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Purpose, Standards and Resources

Purpose

The fundamental purpose of ongoing, Program Integrated Planning and Review (PIPR) is to maintain and if possible improve the effectiveness of every College program and service, and of the institution as a whole, based on the results of regular, systematic assessment. The ultimate beneficiaries of program integrated planning and review are our students and the community we serve.

Specifically, program review facilitates:

- Creation of a three-year plan for each program

- Institutional & program improvement through the comprehensive self-study, peer review, and planning process

- Development of a three-year budget request plan, including data to support annual budget requests

- Creation of a living document that provides all basic information and forward planning for each program; can be referenced by stakeholders via public website

- Program leadership continuity of expertise (e.g., a department chair change)

- A baseline for the integrated planning process and cycle

- Assessment of Program viability

- Accreditation compliance; board policy / administrative procedure compliance (c.f. BP/AP 4020)

Another purpose of the process is to focus available resources—staff time, budget, technology, space - on the achievement of goals and objectives intended to maintain or improve effectiveness of the program itself, but also the programs' contribution to the College's Strategic Plan. Achieving some objectives requires resources over and above what is available, which means that a resource request is necessary. But achieving others requires no extra resources—only the reallocation of existing ones

 Whenever this symbol appears, consider creating a goal on this topic in your three year planning grid at the end of the document.

Resources:

Please refer to the accompanying PIPR Handbook which you can find here. In addition, there are links and paths to information throughout the document.

Program Plan and Review Timeline

When	Description	Participation
2019 Aug	Program Lead training, including website 'tour', GavDATA and other data site overview.	PIPR Chair All Program Leads in Review Cycle
Sept	Program Lead provides budget codes to PIPR for submission to Business Office (Sept 20).	Program Lead
Sept – Nov	Program Lead seeks assistance from support team, department faculty, Dean, others to gather information for report (on-going, as needed). Write Program Report draft (Sept 2 – Nov 15).	Program Lead
Nov	Initial draft due to peers (Nov 15). Peers review report, make suggestions, and identify areas of improvement. Sign off on last page of report (No later than Nov. 22). First Draft revision begins (Nov. 19).	Program Lead Peer Review Team
Dec	2nd draft due to Dean to review, request additions/ clarifications (Finals Week).	Program Lead Supervising Admin
2020 Feb	Dean-reviewed document returned to Program Lead with revision and planning recommendations, if needed. If report is complete and approved, Dean signs and forwards completed report to PIPR (Jan 27-31). If report needs revision, Dean returns to Program Lead.	Program Lead PIPR Supervising Admin
Feb – March	**If needed**, Program Lead makes edits as needed to report (Feb 3-28). Final report sent to Dean for approval and signature (March 2-6). Dean forwards approved document to PIPR (March 13).	Program Lead Supervising Admin
Feb – May	PIPR reviews final documents. Approves final report (Feb 3 – May 22).	PIPR
June	PIPR Chair presents annual report to Board	PIPR Chair, Board
June-Aug	Final reports submitted to President's Cabinet as information item.	Deans Council, Cabinet
Sept	Final documents to Academic Senate and ASGC as information item.	Academic Senate, ASGC

A. Executive Summary

1. Please provide a brief executive summary regarding program trends and highlights that surfaced in the writing of this report. Summarize, using narrative, your program goals for your next three years. Your audience will be your Peer Review Team, the PIPR Committee, President's Cabinet, Dean's Council, ASGC, Academic Senate, Budget Committee and Board of Trustees **(300 words or less)**.

The STEM Center provides a study space where students can meet, work on assignments, get help with their coursework, learn about STEM events happening on and off campus, interact with faculty and tutors, make an appointment with the STEM Counselor and more. Its location in the math building next door to the Math Lab, where math faculty and our full-time STEM Counselor have their offices, and where the Mesa/Trio Center is located make the center the hub of the Natural Science Department. The Center provides a vital service to our students, as students are much more productive in their studies where there are fewer distractions and where help is available. The services provided by the STEM Center are even more vital with the passage and implementation of AB705, that mandates students take transfer level math within their first year of college.

A study completed by the RP group for its 3 year report on the grant showed a **significant relationship** between the STEM Center/math lab usage on student success, determining that **the more often students used the center and the more minutes they spend in the centers, the more likely they were to pass their math courses and earn higher grades.** This study compared users of the STEM Center and Math Lab by the total minutes logged in and the frequency of use. It found that both total minutes and frequency of use were statistically significant contributors to passing their math class. It did not compare users of the centers with non-users. In addition, a recent survey to STEM Academy students, who are required to log in 3 hours/week in the STEM Center or Math Lab, found that of the 26 responds, 20 rated access to the STEM Center as very valuable, and four rated it as somewhat valuable. It should be noted that the STEM Center was just opened in Fall of 2017, and more research about the effects of the center is needed. Specifically, a comparison of users vs. non-users would be useful.

Currently, the Center is funded by the STEM III grant. This grant will end on September 30, 2021. One goal of the center is to increase student usage as we know that increased usage leads to higher success rates and higher grades. The other goal is to pursue alternative funding sources. One option for this would be apportionment. For the past 15 years, the natural science department has benefitted from a series of grants. While these funds have been welcomed, their temporary, ephemeral nature has been the source of insecurity and concern. Thus, a long-term, viable source of funding would be optimal.

B. Program Mission and Accomplishments

Gavilan College Mission Statement

> *Gavilan College actively engages, empowers and enriches students of all backgrounds and abilities to build their full academic, social, and economic potential.*

1. Provide a brief overview of how the program contributes to accomplishing the mission of Gavilan College. In addition to a basic overview of your program's structure and services, be specific in connecting your program's services to elements of the mission statement **(300 words or less)**.

The STEM Center provides a space for students to study for their STEM courses. Student tutors and instructors are available to answer questions for math, physics, biology, chemistry, and other STEM based coursework. Books, laptop computers and other instructional supplies are available for student use, there is ample chalk board space for students to do problems on, and tables have a whiteboard surface for students to work on problems. Outlets for their own laptops and/or electronic equipment are built into each desk.

The program supports the college mission by providing support for students enrolled in STEM Curriculum, thereby increasing their chance of passing their classes and transferring to a four-year institution. Research has shown that students with a connection to the college are more likely to stay and complete their goals. The center provides a meeting place for students, instructors and tutors and as such, is a space for community building. STEM based announcements are on the front board, such as internship availability, STEM Academy membership opportunities, field trips, etc. Free coffee is provided as well as occasional snacks and food.

Response and follow-up to previous program reviews

On the **PIPR website**, locate and review your previous program plan and review (self-study) and subsequent program plan updates. After studying, please complete the following questions:

2. Briefly describe the activities and accomplishments of the department with respect to
- Each goal since the last program plan and review and
- PIPR recommendations.

IEC Recommendation or PIPR Program Goal	Accomplishment
The Math Program plan includes the following goals related to the STEM Center. • A robust STEM Center which offers support in all transfer level STEM coursework including math. The STEM Center provides tutoring, a lending library of books, solutions manuals, laptop computers, and graphing calculators, other academic supplies and supports.	The STEM Center opened in Fall of 2017, and does everything in the goal stated. The STEM Center is staffed by faculty who contribute office hours and/or fulfill FLEX requirements in the center, and by student tutors, as well as a full-time Learning Specialist (staff position). Occasionally, part time faculty are hired to be in the STEM Center, especially if they are in a subject that is difficult to attract qualified student tutors (Engineering, Physics and Chemistry). Students can make appointments with our full-time STEM counselor from the STEM Center. Her office is in the same building. Currently, part time faculty and the full-time STEM counselor are paid by STEM III. This grant will finish on September 30, 2021. Access to STEM based faculty and our full-time counselor in the STEM is a vital component of the success of the Center.

• A well-developed tutor training program for our student tutors and SI leaders in math.	Not only do we have a well-developed tutor training program for student tutors and SI leaders in Math, we also have one for science. Currently, student tutors are paid for with grant funds, however, the grant ends on September 30, 2021. After this, if another grant doesn't come along, tutors and instructors will need to be financed through apportionment.

3. Have the services of your program changed over the past three years? Please explain **(300 words or less)**.

The STEM Center opened for the first time in Fall of 2017. The services have not changed.

C. Program Overview

N/A

D. Student and Program Outcomes

College Goal for Student Achievement

Increase Scorecard Completion Rate for Degree and Transfer

The College has a primary aspirational goal of increasing the Completion rate from 46% to 53.5% on the **CCCCO Scorecard Completion Rate for Degree and Transfer [view] by 2022.** The completion rates in the Scorecard refers to the percentage of degree, certificate and/or transfer-seeking students tracked for six years who completed a **degree, certificate, or transfer-related outcomes (60 transfer units).**

As you answer the questions below, please consider how your program is helping the college complete this aspirational goal of increasing the Gavilan College Degree, Certificate, and Transfer Completion rate by 7.5 percentage points on the CCCCO Scorecard by 2022.

Success

The following questions refer to data regarding student achievement.

Path: GavDATA Program Review/ EquityD1. Course Success Rates by Group

Find your discipline's course success information. Consider your department success rate trends over the last three years. Compare your overall-success to the college average.

1. Are these rates what you expected after comparing with the college average? Are there any large gaps? Is there anything surprising about the data? What trends are suggested by the data **(200 words or less)**?

> For the Natural Science department as a whole, the success rates for 2017/18 and 18/19 were 72% and 73% respectively, while pass rates for the college as a whole were slightly lower at 71%. Within the Natural Sciences Division, pass rates vary among the disciplines varied. For example, the success rate for Math was 67 and 66% respectively, while success rates in Biology are 84 and 80% respectively. This is not surprising, as math has always had lower success rates than the average, for obvious reasons.

Now find your division persistence information. Consider your retention rate trends over the last three years. Compare your overall retention to the college average.

2. Are these rates what you expected after comparing with the college average? Are there any large gaps? Is there anything surprising about the data? What trends are suggested by the data **(200 words or less)**?

Path: GavDATA Program Review/ EquityD2. One Year Persistence Rate

> Persistence for Natural Science was 57% for 2016 to 17 and 2017 to 18. This was higher than the college as a whole which had 48% and 47% respectively, perhaps indicating that STEM majors are more committed to their academic goals.

3. What are your set goals for course success? Do your individual course and department rates meet this goal? Helpful Question: If your rates for success are lower than your goals, what are your plans to improve them **(200 words or less)**?

Path: GavDATA Program Review/ EquityD3. Course Rates by Unit

> The STEM Center provides support for our STEM based courses. As such, the goal of the STEM Center would be that students who regularly attend the Center do markedly better than students that don't. In addition, we would

like to increase the number of students served. Finally, we would like to increase the number of students who use our full-time STEM counselor, as this will increase degree completion and transfer.

4. How many students did your area serve (if you don't have an exact count, please provide an estimate)? How did they perform in comparison to those that did not use your services, if applicable? Given this information, how has your service or area supported student success and retention over the past three years **(200 words or less)**?

Path: GavDATA Program Review/ EquityD4. Milestone Tracking Summary

STEM Center hours, students			
	Times Used	Hours (50 min/hour)	Number of students
Fall 2017	945	1987.24	111
Spring 2018	1591	4019.46	123
Summer 2018	34	73.14	11
Fall 2018	1971	4664.68	153
Spring 2019	1549	3484.74	149
Summer 2019	51	103.96	18
Fall 2019	1616	2962.3	148

The table above gives the hours logged into the center by students, the number of times students logged in and the number of students served. The first semester we opened had the lowest usage. Since then, the use of the center has fluctuated between roughly 3400 hours and 4700 hours per semester. The Fall 2019 represents the first 9 weeks of the semester. Note the center is generally not open during summer.

Responses from a student survey conducted by the RP group in February of 2019 showed that among all the STEM III resources, the STEM Center has had the most impact on STEM students, regardless of whether the students participated in the STEM Academy or not. They also explored the relationship of the STEM Center and math lab usage and students' grades in their math course. Findings showed a **significant relationship** between the STEM Center/math lab usage on student success, determining that **the more often students used the center and the more minutes they spend in the centers, the more likely they were to pass their math courses and earn higher grades.** (from Year 3 evaluation). As mentioned previously, this study compared users of the STEM center and Math lab by total minutes logged in and the frequency of use, and found both frequency and duration of use were statistically significant variables in the student passing or not passing their class. This study did not compare users of the centers with non-users however. More research in this regard is needed.

A recent response to this, which was also a response to AB705, was to include time spent in the STEM Center and/or Math Lab as a small portion of the students' grade for Math 8A (Precalculus 1). This was implemented in Fall 2019, so the effect of this is unknown at that time.

5. Refer to your previous HYPERLINK "http://www.gavilan.edu/staff/program_planning/Past_Plans.php"three HYPERLINK "http://www.gavilan.edu/staff/program_planning/Past_Plans.php"-year plan for your stated outcomes and initiatives that were evaluated. Using your previous plan, consider and comment on the following questions.

- What were the measured outcomes of specific initiatives over the past three years?

- What groups are you measuring? Is there a comparison group—for example, against the college average or students who do not participate in your activity?

- What indicators are you measuring?

(300 words or less)

> While the STEM Center was mentioned in the math 3-year plan, the STEM Center itself doesn't have a three-year plan as it opened in Fall of 2017.

6. N/A

Consider setting goals toward these initiatives in your Three-Year Program Plan at the end of this document.

Equity

Gavilan College has identified the following populations as experiencing disproportionate outcomes: Males (African American, Asian, White, Two or More Races, and First Generation), Students with Disabilities, Veterans and Foster Youth.

7. **For AEC**: Using the path above, locate your program in GavDATA. Examine your equity results over the last three years. If there are differences in success rates and/ or retention across groups, comment on any differences in success rates across groups. Helpful Questions: What current factors or potential causes can be connected to these areas of disproportional impact? How might your program or department address student equity **gaps (200 words or less)**?

For all other areas, comment on the college-wide disproportionate impact report. Contact your support team for any needed assistance in interpreting these data. Helpful Questions: What current factors or potential causes can be connected to these areas of disproportional impact? How might your program or department address student equity gaps **(200 words or less)**?

Path: GavDATA →Program Review/ Equity →D7. Disproportionate Impact with Margin of Error by Year →locate your program →Filter by Year

Contact your support team for any needed assistance in using GavDATA.

> Within the Natural Sciences department, the groups that experience a disproportionate impact are African Americans (-8), Native American (-6), male (-3), learning disabled (-6), and current/former foster children (-6). (from 2016/17) These hold about steady through 2017/18 and 2018/19.

8. HYPERLINK "http://www.gavilan.edu/administration/board/documents/ApprChapter3_policy_proc,%20August%202017.pdf"BP 3420 (Equal Employment Opportunity) states:

The Board supports the intent set forth by the California Legislature to assure that effort is made to build a community in which opportunity is equalized, and community colleges foster a climate of acceptance, with the inclusion of faculty and staff from a wide variety of backgrounds. It agrees that diversity in the academic environment

fosters cultural awareness, mutual understanding and respect, harmony and respect, and suitable role models for all students. The Board therefore commits itself to promote the total realization of equal employment through a continuing equal employment opportunity program.

How does your department align with the District's Equal Opportunity Board Policy? Helpful Question: How do you plan to address EEO outcomes in your employee hires **(300 words or less)**?

Mostly N/A Natural Science Faculty are hired by the department. Student tutors do reflect the diversity of the student body. However, our full-time STEM based counselor is a Hispanic woman who speaks Spanish, and is able to advise students and parents of students in their native language.

9. Find your Distance Education success information. If distance education is offered, consider any gaps in success rates between distance education and face-to-face courses. Do you notice any trends? Do these rates differ?

Path: GavDATA Program Review/ EquityD9. Course Success RatesLocate your department. Filter by Delivery Methods

Helpful question: If disparity exists, how do you plan on closing the achievement gaps between distance education and face-to-face courses **(300 words or less)**?

N/A

10. How do you plan on addressing issues of student and employee equity? In other words, how do you plan on closing achievement gaps across student populations? How do you plan to address EEO outcomes in your employee hires **(200 words or less)**?

Our student tutors reflect the diversity of our student body. With respect to employee hires, this is not under the control of the STEM Center, with the previously mentioned exception of our full-time STEM counselor, who is Hispanic and Spanish speaking.

11-12. N/A

curriQunet   N/A

Click Link above and go to Intranet page in My.Gav

13. Are your SLOs, PLOs and ILOs mapped in curriQunet?

Yes: **No:**

14. Are your SLOs and PLOs up to date in curriQunet AND on the reporting website (requires your email log-on)?

Yes: **No:**

15. Have all of your SLOs and PLOs been assessed in the last five years?

Yes: **No:**

16. Have you reviewed all of your SLOs to ensure that they remain relevant for evaluating the performance of your program?

Yes: **No:**

17. If you answered no to any of the above questions, what is your plan to bring SLOs/ PLOs into compliance **(200 words or less)**?

 Consider addressing this in your Three-Year Program Plan at the end of this document.

Outcomes Assessment

Review Outcomes data located in the Course and Program Reports for your area (path below).
After you have examined your results, reflect on the data you encountered.

18-19. N/A

Services Area Outcomes (SAO)
Path: Gavilan College Intranet Program Planning BoxStudent Learning Outcomes Assessment Reporting Program Level SLO (Far left) Student Services Select program and year

20. What is your set goal for SAO success for each SAO **(200 words or less)**?

N/A There is no report for the STEM Center.

Institutional Learning Outcomes (ILO)
21. How do your SAO support the college ILOs? Be specific **(200 words or less)**.

N/A

Gap Analysis
22. Are you meeting your SAO success goals? What patterns stand out in your results? If your SAO results are lower than your goals, what are your plans to improve them **(200 words or less)**?

We don't have SAO's. N/A

 Consider addressing LOs in your Three-Year Program Plan at the end of this document.

E. Curriculum and Course Offerings Analysis

Curriculum Analysis

1. Are there plans for new courses or educational awards (degrees/certificates) in this program? If so, please describe the new course(s) or award(s) you intend to propose **(200 words or less)**.

> N/A

2. Provide your plans to either inactivate or teach each course not taught in the last three years **(200 words or less)**.

> N/A

Course Time, Location and Delivery Method Analysis

Using the copy of the Master Schedule from [Argos,](), find the information regarding when, where, and in which method the courses in this program are taught.

> **Path**: Gavilan IntranetArgosGavilan ScheduleSchedule by Division and DepartmentSelect term, division and your department then press 'run dashboard'.
>
> **To Create a PDF of your results above:** After obtaining results, go to the top of the screen: ReportsSchedule Reports by Division and Dept svcRun

Please answer the following:

Location/Times/Delivery Method Trend Analysis:
3. Consider and analyze your location, time, and delivery method trends. Are classes offered in the appropriate sequence/ available so students can earn their degree or certificate within two years? Are courses offered face-to-face as well as have distance education offerings? Are they offered on the main campus as well as the off-site areas? Different times of day **(300 words or less)**?

> The STEM Center is open 8:30-5, M-F. Students do use the center in the evening, however, it is generally not staffed.

Consider goal creation around more efficient and beneficial locations, delivery method and/or time of day trends in your Three-Year Program Plan at the end of this document.

F. Program and Resource Analysis

Program Personnel

1. Please list the **number** of Full and Part Time faculty, staff and/ or managers/ administrator **positions** in this program over the past two years. Focus on your individual program.

To add additional rows, click in the bottom cell on the right and push 'tab' on the keyboard.

Academic Year	F = Faculty S = Staff M= Mgr/ Administrator	Full Time	Part time	Percentage Full to Part-time
Example: 1999	F = 3 S = 15 M = 1	F= 1 S = 12 M=1	F=2 S = 3	FT= 74% PT= 26%
2017-18	S=1 F=8	S=1 F=1*	S=0 F=8	FT=20% PT=80%
2018-19	S=1 F=11	S=1 F=1*	S=0 F=10	FT=17% PT=83%

*Full time Instructor is the STEM III Activity Director, who is in charge of many things, one of which is the STEM Center.

How have and will those with reassigned time, grant commitments and activity, projected retirements and sabbaticals affect personnel and load within the past in the next three years? What future impacts do you foresee **(200 words or less)**?

Currently, the STEM Center gets 15 hours a week of full and part time faculty donating an office hour to the STEM Center. The Center is maintained by a full-time staff member paid by the grant. The fulltime STEM Counselor is also paid by the grant. In addition, two full-time faculty members (one for math, the other for science) get release time to hire, train and schedule student tutors in the STEM Center, and one full-time faculty member gets 100% release time to run the grant, and this includes managing the STEM Center. The grant will end as of September 30, 2021. The college will need to either find another grant or take on the expense of tutors and faculty in the center. Apportionment is one option, as has been done with the Math Lab in the past. Planning for this event should begin now.

Program Productivity Measurements

2. Determine the number of students you assist annually. Using the data provided by the business office, calculate your average cost effectiveness per student. **Counseling**: Student contacts should focus on number of counseling appointments per year. Please find your total contact hours in SARS.

1. Academic Year	2. Total Number of student contacts (refer to D.4.)	3. Total allocated budget	4. Total spending	5. Total cost per student (Student Contact/ Total Spending)
Ex: 1999	715	$15,000	$14,500	$20.28 per student
2017-18	234 (6007 hours)	$92,053.5	$101,256.80	$432.72/student or $16.86/hour
2018-19	302 (8149 hrs)	$94,406.586	$ 99,962.5	$407.94/student $15.12/hour
2019-20	148*(2962 hrs.)		N/A	

*as of the 9th week of the fall semester.

Evaluate your program costs. Are your costs in alignment with your budget? If not, what improvements can be made? Please explain any trends in spending, inconsistencies and unexpected results **(200 words or less)**.

> The center opened in 2017, and hours for the fall semester were the lowest because the center was new. In addition, start up costs were much higher in 2017. (Note, not included in the costs was approximately $200,000 spent on laptops for both the center and for our classrooms. About a third of those were for the center.) Note that the budget amounts were taken from the STEM grant.

3. N/A

Evaluation of Resource Allocations

4. List the resource allocations from all sources (e.g., annual college budget request appropriations, Guided Pathways funds, grant funds, etc.) received in the last three years. For annual college budget request appropriations, reference your previous three-year plan and annual updates.

Please evaluate the effectiveness of the resources utilized for your program. How did these resources help student success and completion?   For college budget request appropriations, list the result of the evaluation strategy outlined in your previous three-year plan and annual updates. For all other sources of funding, list the results of the evaluation strategy contained within the program or grant plan.

To add additional rows, click in the bottom cell on the right and push 'tab' on the keyboard.

Resource Allocated	Funding Source	Academic Year	Purpose of Funding	Result
Ex: $10,000	Equity	2017-18	Purchase text for students in Math 5	83% of students turned homework in on time, an increase from 72% in 2016-17
$ 12,741.12	STEM III	2017-2019	Purchase of text books and solution manuals for a lending program for Math 8A, 8B, 1ABC for STEM Academy students and for use in the STEM Center	STEM Academy students were relieved of the cost of their math text books making college more affordable. Text books and solution manuals are available to students for use in the center.
$ 5575	STEM III	2017-18	Purchase of graphing and non-graphing calculators for loan program for students and for use in the classroom.	Students have access to a loan program or graphing calculators, and instructors have access to class sets of calculators for in-class use.
$197,374.14	STEM III		Lap top computers available for student use and for classroom use, as well as to provide faculty and staff a computer after the hacking of Gav. Computers	Students have access to laptop computers in the STEM Center, and a class set of laptops are available in each of our STEM buildings.
$ 1,838.69	STEM III	2017-19	Other supplies such as white board applications for desk tops, graphing paper, white board markers and other academic supplies.	These supplies are for STEM Center students.

Integrated Planning and Initiatives

5. What other areas is your program partnering with (i.e. guided pathways, grant collaboration) in new ventures to improve student success at Gavilan College? What is the focus of this collaboration? Helpful question: What are the

department and your Integrated Planning/ Guided Pathways partners' plans for the next three years **(200 words or less)**?

> The STEM Center was financed by STEM III, which has the broader goal of piloting guided pathways in STEM. As such, the Guided Pathway work on campus has partnered with the Grant work, in that the STEM Activity Director has participated in GPW efforts on campus and used the STEM based GPW we developed as a model for the campus. In addition, SEAP, Title V and Equity funds have contributed to the financing of tutors, though this was mainly for the Math Lab tutors. Finally, our MESA program pays for a portion of our STEM Counselor.

Consider addressing this in your Three-Year Program Plan at the end of this document.

Other Opportunities and Threats

6. Review for opportunities or threats to your program, or an analysis of important subgroups of the college population you serve. Examples may include environmental scans from the [Educational Master Plan,](#) changes in matriculation or articulation, student population, community and/ or labor market changes, etc. Helpful Question: What are the departmental plans for the next three years **(200 words or less)**?

> STEM III is available until 2021. After this, the availability of grant funding and the ability of the college to obtain those funds is uncertain. Planning should begin now to look into apportionment as a viable source of funding for both the Math Lab and the STEM Center. Both centers provide crucial support to our STEM students, especially with AB705, which mandates that students take transfer level math in their first year of college. The location of the Math Lab and the STEM Center is one of the major factors contributing to its success.

Consider addressing this in your Three-Year Program Plan at the end of this document.

Appendix

Optional Questions

Please consider providing answers to the following questions. While these are optional, they provide crucial information about your equity efforts, training, classified professional support, and recruitment. **All replies should consist of 100 words or less**.

1. Does your division (or program) provide any training/mentoring for faculty and/ or classified professionals regarding professional development?

> Various faculty have been to conferences and training activities both on and off campus. In the past two years, there have been multiple opportunities to learn about Guided Pathways on campus. Many of the math and science faculty have been to Acceleration conferences, CMC^3, and other related conferences.

2. If there is a need for more faculty and/ or classified professional support in your area, please provide data to justify request. Is there a need for expanded support services (i.e. tutoring or math lab at the off-sites, in the evening, etc.) in your area? Indicate how it would support the college mission and college goals for success and completion.

> Currently, the Center is staffed by hours contributed to the center from full and part time faculty. There is a full time staff member who helps with the grant. Part of his duty is to tend to the administrative duties of the stem center. He also provides tutoring in computer science, as he has a masters in CS. The math lab currently has two part time "learning specialists" who run the center and provide tutoring to students. Should we move to apportionment, there will be the need of a learning specialist who can provide tutoring in higher level math and some of the science/physics classes that are offered.

3. What, if anything, is your program doing to assist the District in attracting and retaining faculty and classified professionals who are sensitive to, and knowledgeable of, the needs of our continually changing constituencies, and reflect the make-up of our student body?

> N/A

4. Are there program accomplishments/ milestones that have not been mentioned that you would like to highlight?

> None that haven't already been mentioned.

Review Process Feedback

Please share any recommendations for improvements in the Program Integrated Plan and Review process, analysis, and questions. Your comments will be helpful to the PIPR Committee and will become part of the permanent review record.

> No recommendations at this time.

Example Program and Collaboration Three-Year Program Plan Goal Setting Worksheet

Goal One sentence limit.	Connection of Goal to Mission Statement, Strategic Plan and SAO Results. Use one sentence for each item.	Proposed Activity to Achieve Goal One sentence limit.	Responsible Party One sentence limit.	Fund amount requested. If a collaboration, what % required from each partner? If applicable, list each budget partner / source separately	Timeline to Completion Month / Year	How Will You Evaluate Whether You Achieved Your Goal Two sentence limit.
Increase proportion of EOPS students completing degrees by five percentage points	Mission statement: engages students of all backgrounds. Strategic Plan: Goal 4 SAO Results: Outcome 1; 76% of students completed 3 counseling visits	Increase counseling touch points from three times per semester to five times per semester by restructuring appointment and communication schedule	Dean, Special Programs	None	December 2021	In three years, compare EOPS student graduation rates from before the touchpoint increase to graduation rates after the increase
Decrease average response time for IT requests from three days to two days	Mission statement: Actively engages students Strategic Plan: Goal 2: Improve Efficiency SAO Results: Outcome 3: End-user problems will be responded to in a timely manner and resolved effectively by MIS staff.	Implement new workflow management software	Director of Information Technology	$7,500 for software package	September 2020	Compare average response times from one year before software implementation to one year after implementation

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Program and Collaboration Three-Year Program Plan Goal Setting Worksheet

To add additional rows, click in the bottom cell on the right and push 'tab' on the keyboard.

Program: STEM Center

Goal One sentence limit.	Connection of Goal to Mission Statement, Strategic Plan and SAO Results. Use one sentence for each item.	Proposed Activity to Achieve Goal** One sentence limit.	Responsible Party One sentence limit.	Fund amount requested. If a collaboration, what % required from each partner? If applicable, list each budget partner / source separately	Timeline to Completion Month / Year	How Will You Evaluate Whether You Achieved Your Goal Two sentence limit.
Increase student usage of the STEM Center by 10% over the next three years	Increased use of the STEM Center increases pass-rates of STEM classes and grades received	Increase tutor and instructor availability in the Center, add evening hours, and require weekly STEM Center usage for targeted STEM classes.	Natural Science department.	Tutors: Additional $15000 over the 2018/19 amount of 35000. Instructors: $70,000/year to pay for part-time/full-time faculty to staff the center ($36,000 to staff the center at night (1 faculty member @ $75/hour*4/3 (burdens/benefits)*12 hours/week *15wks/semester * 2 semesters	Sept 2021 (Grant runs out Sept 2021)	The goal will be achieved if there is an increase in the hours of usage of the STEM Center, and the number of students served.
Secure a long-term alternative source of financing to pay for the Center by Fall of 2021. One option is	Increased use of the STEM Center increases pass-rates of STEM	Find out requirements needed to collect apportionment and fulfill those	Natural Science Department and			

to collect apportionment.	classes and grades received and this would relieve us of worrying about the future.	requirements or explore other options.	Administration			
Study the effects of STEM Center on success rates by comparing users of the center with non-users. Also determine the level of use that results in higher success.	This information will inform the department about the effects of usage on students' success and will be used for implementing requirement for center usage as a parat of the students' grade for gateway math classes.	Compare users and nonusers of the STEM Center (and Math Lab) for targeted Math and science classes to see if users have higher pass rates than non-users.	Natural Science Department, researcher, Activity Director (RP group)	Unknown	Spring 2021	

Signature Page

Program being reviewed: __**STEM Center**__
Date:

How to use form:

Role	Name	Assignments/ research assigned, if any	Date and Initial upon **final** review
Team Lead/ Chair	Marla Dresch		
Supervising Admin	Jennifer Nari		
Reviewer			
Faculty Peer Reviewer			
Student			
PIPR Support Team	Susan Sweeney		12-2-19
PIPR Support Team	Lelannie Diaz		