Program Review - Overall Report

Instructional: Biology
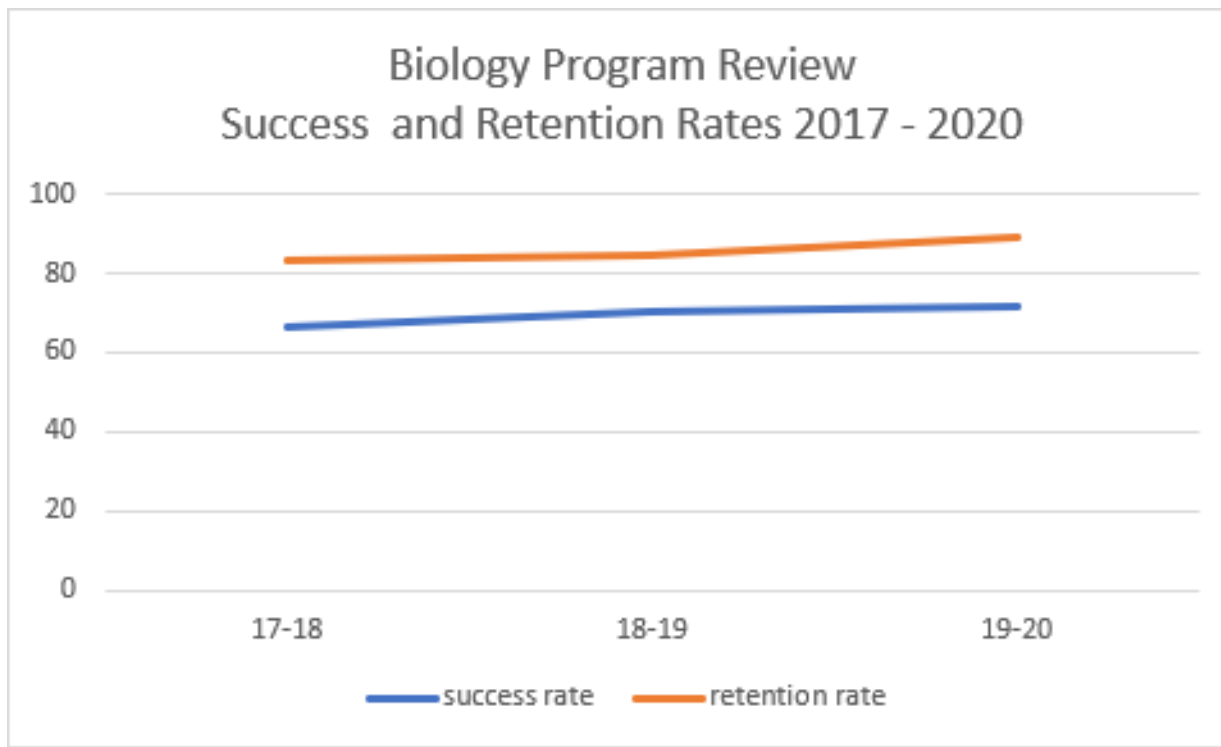
Data Review

2021 - 2024

Overall Trends

What overall trends do you see in success, retention, program of study, educational planning, and awards over the past 3 or more years?

Overall, students in AMY, BIO, HES and MIC courses have been increasing from 66.6 % to 71.6% in success and remaining about the same from 83% to 83.9 % in retention over the past 3 years.

The students in AMY, Bio, HES, and Micro courses have decreased in their rate of receiving less than passing (DF) grades during this time.

For the following programs of study: Biology and Math & Science the percentage of students developing a comprehensive credit education plan decreased from 12.22% to 10.55% in 3 years and the number of program awards granted over the past 3 years remained the same from 233 awards to 200 awards.

The number of students who have completed a degree or certificate in Biology and Math & Science programs went from 233 to 200 in 3 years. This represents no growth for these programs. In the most recent year 2019-2020, 200 students graduated. The

Data Review

expected number of students who should get a degree would be approximately (200/3744) 5.3% of Program of Study in 2019-2020. The gap in the pipeline is approximately 3544 more students to graduate with a degree or certificate. This number is large since the majority of our students transfer to programs or universities without the necessity of the program award.

Disaggregated Student Subgroups

Look at the disaggregated student subgroups in success, retention, program of study, educational planning, and awards for your area. Are there any equity gaps that you will address in the next 3 years?
In terms of student subgroups in AMY, BIO, HES, and MIC courses, only hispanic female and male student groups are showing gaps in success. Only hispanic females are showing equity gaps in retention that are concerning.
Equity gaps in program of study, educational planning, and awards are not shown on the tables for these areas.
We should take steps to address equity gaps for female and male hispanic success and female hispanic retention.

If there are any concerning trends over the past 3 or more years, or if equity gaps exist, what is your action plan to address them?
We address equity gaps for females and minorities by hosting STEM Seminar Series where female and/or minority speakers are invited to share their current research and ignite interest in STEM.

We are recruiting local high school students for a Forensics for Women competition which introduces students to the basic methods of science and the scientific method.

Dr. Monica Gutierrez shares her personal experience as a hispanic female in STEM to our Puente students.

We are increasing offering of Human Biology (BIO-4) as a pre-requisite for Anatomy and Physiology (BIO-50A/B) to address preparation gaps in students from underserved populations.

Is there a resource request associated with this Data Review? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

Assessment Review

2021 - 2024

Section 1: SLO Assessment Status (Based on Dashboard - Assessment Status)

Which Disciplines are included in this Assessment?
BIO and HES
What percent of SLOs in the disciplines you identified above have been assessed?
97.6%
Which SLOs have not been assessed and why? Identify both the Course and the associated SLO(s).
Bio-21 (SLO1 and 2) due to this being a new course

Section 2: Mapping Status (Based on Dashboard - Mapping Status)

Are all SLOs mapped to at least one PLO?
Yes
If all SLOs are not mapped to at least one PLOs, please explain why.
All of the SLOs are mapped to at least one PLO
Are the appropriate SLOs mapped to GELOs? (If you have a course that is listed in any general education area, it should have at least one SLO mapped to at least one GELO)
Yes
If the appropriate SLOs are not mapped to GELOs, please explain why.
Appropriate SLOs are mapped to GELOs

Section 3: PLO Analysis (Based on Dashboard - Analysis: PLO Direct Assessment)

Which Programs are included in this Assessment?
ADT- Biology, ADT-BIO Environmental Science, ADT-KIN Kinesiology, AOE-MAT: Math and Science
Please identify the PLO(s) - and name the associated Program(s) - that achieved benchmarks.
All PLOs for ADT-Biology, ADT-BIO Environmental Science, ADT-KIN Kinesiology achieved benchmarks above 70%. AOE-MAT: Math and Science PLO 3 achieved a benchmark above 70%.
To what to you attribute this success?
Hiring of more full-time faculty has supported achieving these benchmarks
Please identify the PLO(s) - and name the associated Program(s) - that did not achieve benchmarks.
AOE-MAT: Math and Science PLOs 1 & 2 did not achieve a benchmark of 70%
If there are PLOs that did not achieve benchmarks, what do you plan on doing to improve benchmark attainment?
Our unit is not responsible for PLO 1 in AOE-MAT. Our unit intends to improve assessment of PLO 2 in AOE-MAT with the instructional supplies and personnel requests to increase student learning of the scientific method.

Section 4: Alignment to Career and Transfer

Describe the process used in this area to ensure programs (PLOs) align with career and transfer needs.
ADTs and courses are aligned to the C-ID system to improve transfer to CSUs. All courses are transferable to CSUs and UCs, as well as many other regional colleges and universities.

Assessment Review

Describe the activities, projects, and opportunities this program offers to support experiential learning and alignment of programs to career and transfer (e.g. capstone projects, portfolios, service-learning opportunities).

Our programs provide students with labs and field trips to support experiential learning and laboratory experiences vital for transfer requirements.

Without looking at your current PLOs, describe some program outcomes which would best help your students continue on the path towards their workforce and transfer goals (e.g. subject matter expertise, hands on experience, partnerships, etc.).

Laboratory and field skills, critical thinking skills, ability to apply the scientific method

Review current PLOs. Do the outcomes listed above align with the current program outcomes?

Yes

Program Review: Part 1

EMP GOAL 1. Expand college access by increasing both headcount and full-time equivalent students (FTES).

GOALS AND ACTIVITIES
What are you doing now in support of this goal?
We have hired two new full time faculty (one is a replacement for a retiree), we have expanded course offerings, and we have maximized our laboratory and lecture spaces.

What are your plans/goals (3-year) regarding this goal?
We would like to offer more sections of impacted courses. To support this goal, we need more lab and lecture space to offer more sections, we need another full-time faculty member in Biology to teach more sections, and we need another full-time laboratory techician to support current courses offerings in the sciences and support future growth in course offerings.

Rank	Category	Request	Cost
3	Faculty	Full-time Biology Instructor	$150,000.00
4	Staff	Full-time Lab Technician	$85,000.00

In the distant future, we hope that a Science building will be built with a prep room in the middle of all of the laboratory spaces, and with laboratories designated for particular courses, as is done at many colleges and universities around the country. This layout reduces the need to have multiple laboratory technicians in multiple locations at that same time.

EVIDENCE
Do you have assessment data or other evidence that relates to this goal?
We have numerous courses in Biology that are impacted with full waitlists, in particular BIO-1, BIO-50A, BIO-50B, and BIO-55. Most of our courses are taught by part-time faculty, for example, in Fall 2021 there are 42 sections in Biology with 28 sections taught by part-time faculty or as overload for full-time faculty. The current arrangement of laboratory spaces in multiple buildings, and lack of laboratories designated for the same course means that our laboratory technicians must completely change the laboratory set-up between courses and must move laboratory supplies and equipment between buildings.

Kevin Eagan, M., & Jaeger, A. (2009). Effects of Exposure to Part-time Faculty on Community College Transfer. *Research in Higher Education*, *50*(2), 168–188. Results: The researchers found a strong correlation between students' exposure to part-time faculty instruction and the likelihood that these students would not transfer to four-year institutions. Article attached in the document repository for this submission.

RESOURCES
Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

GOALS AND ACTIVITIES

What are you doing now in support of this goal?

The science department is working to close equity gaps by collaborating with other departments and committees to address equity gaps in our department. One way we are addressing this is by increasing the offering of alternative pre-requisite classes that help prepare student for the upper level coursework. The increase in sections of Human Biology (BIO-4) for allied health pre-professionals is one example.

What are your plans/goals (3-year) regarding this goal?

We plan on increasing the offering of Human Biology (BIO-4) as a pre-requisite, as an alternative to General Biology (BIO-1), for students pursuing nursing and other allied health fields. BIO-4 is a survey course of the human body that provides a step between high school life science and the Anatomy and Physiology series (BIO-50A and BIO-50B). BIO-4 has demonstrated the ability to close the equity gap by providing students a solid background for Anatomy and Physiology needed by many of our students in underserved populations.

Program Review: Part 1

Rank	Category	Request	Cost
5	Instructional Supplies	Bio 4 Human Body Models	$6,623.60
7	Technology	Replacement laptop computers for IT 128	$38,400.00
8	Furniture	Replacement of all lab benches in IT 128	$18,560.00
9	Technology	JoVE science education subscription for the library (renewed annually)	$15,000.00
11	Instructional Supplies	Bio 4 Human Organ models	$6,677.20
14	Instructional Supplies	Replacement microscope slides	$700.00
16	Instructional Supplies	Bio 4 Physio Equipment	$536.14
17	Instructional Supplies	Bio 4 Posters	$61.75

EVIDENCE

Do you have assessment data or other evidence that relates to this goal?

We do not have assessment data at this time, due to the fact that BIO-4 has had limited offerings. There is evidence from other districts that support the working hypothesis that Human
Biology courses increase success rates and close equity gaps in higher level courses for students pursuing nursing and other allied health fields.

Anderton, R.S., Evans, T., & Chivers, P. (2016). Predicting Academic Success of Health Science Students for First Year Anatomy and Physiology. *The International Journal of Higher Education, 5*, 250-260. Results found that "Previous study of science (*human biology*, chemistry or physics) strongly predicts academic performance in BMS100 (***$p <. 001$)." Article attached to this Program Review as a supporting document.

Program Review: Part 1

Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

EMP GOAL 7. Become the regional college of choice by offering a comprehensive range of programs that prepare students for the future and meet employer workforce needs.

GOALS AND ACTIVITIES

What are you doing now in support of this goal?

1. Anatomy and Physiology laboratory exercises that have not significantly changed in many years.

2. Offering of a variety Gen Ed course offerings for life science courses, including lecture only courses, lecture and lab courses, and lecture and field biology courses, all of which are transferable to CSUs and UCs. Many of these courses are using equipment and supplies that are out-of-date, broken, or non-functional.

What are your plans/goals (3-year) regarding this goal?

1. Add real-time physiology labs that mimic clincal tests such as ECG, EEG, respirometry, muscle contraction, etc. using Bio-Pac technology.

2. Increase offerings of Human Biology (BIO-4) as a prerequisite for Anatomy and Physiology courses and offering of a new field course: California Naturalist (BIO-21). To provide these increased offerings, as well as maintaining current course offerings requires instructional supplies for labs. The increased offerings of BIO-4, the new course of BIO-21, and maintaining current laboratory courses all require resource requests to provide students with a comprehensive education that prepares them for transfer to 4-year universities and colleges.

3. The Biology Discipline has approved and submitted DE forms for several Biology courses, so that we can increase our offerings to become a regional college of choice. An ongoing subscription to JoVE Science Education by the library is needed to support these DE courses. This subscription will also support face-to-face classes, by providing animations of difficult content in biology.

Program Review: Part 1

Rank	Category	Request	Cost
1	Technology	Surface Pros to replace laptop computers for ST 207 to run BIO-PACs	$93,000.00
2	Technology	BIO-PACs (basic + respirometer) - BIO-50A/B	$28,000.00
5	Instructional Supplies	Bio 4 Human Body Models	$6,623.60
6	Instructional Supplies	Field tools and supplies - Bio 21	$1,400.00
7	Technology	Replacement laptop computers for IT 128	$38,400.00
8	Furniture	Replacement of all lab benches in IT 128	$18,560.00
9	Technology	JoVE science education subscription for the library (renewed annually)	$15,000.00
10	Instructional Supplies	Field Guides - Bio 21	$900.00
11	Instructional Supplies	Bio 4 Human Organ models	$6,677.20
12	Instructional Supplies	Anatomy models for ST 207	$4,000.00
13	Equipment	Replacement oxygen meters for IT 128	$1,280.00

Program Review: Part 1

14	Instructional Supplies	Replacement microscope slides	$700.00
15	Instructional Supplies	Analytical instruments and supplies - Bio 21	$1,388.00
16	Instructional Supplies	Bio 4 Physio Equipment	$536.14
17	Instructional Supplies	Bio 4 Posters	$61.75
18	Technology	PCR Machine Thermo Fisher (1) - BIO-60	$5,210.00
19	Technology	BIO-RAD UV-Visible spectrophotometers (8) - BIO-60	$25,600.00
20	Instructional Supplies	TK6 Tissue Culture Supplies and Cell Line - BIO-60	$2,500.00
21	Equipment	3-tiered seed sprouter - BIO-3,5,8	$640.00
22	Safety	Autoclave maintanence contract (renewed annually)	$8,000.00

EVIDENCE

Do you have assessment data or other evidence that relates to this goal?

To become the regional college of choice by offering a comprehensive range of programs that prepare students for the future, we need up-to-date equipment and supplies to attract students to our college.

1. Published data is available of the success of using the Bio-Pac systems to support real-time physiology labs: BIOPAC SYSTEMS HELPS STARK INDUSTRIES LAUNCH VITAL VENTILATOR FOR NASA JPL Here.

2. Assessment data for all life science courses is available. These courses are regularly assessed with overall good student success. Once we increase the availability of Human Biology (BIO-4), we intend to compare the success of students in Anatomy and Physiology courses based on whether they took General Biology (BIO-1) as a pre-requisite or Human Biology (BIO-4) as a pre-requisite. Our working hypothesis is that students with the BIO-4 pre-requisite will have higher success and retention than students with the BIO-1 pre-requisite in Anatomy and Physiology (BIO-50A and 50B) courses. Anatomy and Physiology courses,

along with Microbiology (BIO-55), are the primary courses taken by students to pursue nursing and other allied health careers. According to **The Inland Empire Regional Collaborative Health Industry Workforce Report 2017** (support documentation in this program review) there will be an increased demand for at least 55 healthcare occupations in the next 5 years. Many of these allied health occupations require the above listed courses as pre-requisites. Increasing these BIO course offerings with up to date equipment and supplies gives our students the opportunity to pursue these regionally in demand careers.

RESOURCES
Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

EMP GOAL 9. Expand workforce to support comprehensive college and develop/sustain excellent workplace culture.

GOALS AND ACTIVITIES
What are you doing now in support of this goal?
We currently have 6 full-time faculty and 17 part-time faculty in Biology, as well as 3 full-time laboratory technicians and 1 part-time laboratory technician for Biology, Chemistry, and Physics.

What are your plans/goals (3-year) regarding this goal?
We would like to hire a new full-time faculty member in Biology and a new full-time laboratory technician to support Biology, Chemistry, and Physics laboratories.

Rank	Category	Request	Cost
3	Faculty	Full-time Biology Instructor	$150,000.00
4	Staff	Full-time Lab Technician	$85,000.00

EVIDENCE
Do you have assessment data or other evidence that relates to this goal?
Most of our courses are taught by part-time faculty, for example, in Fall 2021 there are 42 sections in Biology with 28 sections taught by part-time faculty or as overload for full-time faculty. We have expanded course offerings in Biology to maximize lecture and laboratory space, and we need full-time faculty and another laboratory technician to support these courses. The current layout of laboratories on campus and lack of labs designated for single courses, means that laboratory preparation requires more work than colleges that have designated labs around a central prep room.

Kevin Eagan, M., & Jaeger, A. (2009). Effects of Exposure to Part-time Faculty on Community College Transfer. *Research in Higher Education*, *50*(2), 168–188. Results: The researchers found a strong correlation between students' exposure to part-time faculty instruction and the likelihood that these students would not transfer to four-year institutions. Article attached in the document repository for this submission.

Program Review: Part 1

RESOURCES

Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

EMP GOAL 12. Develop innovative and diversified resources to build and sustain a comprehensive college and achieve its visionary goals.

GOALS AND ACTIVITIES

What are you doing now in support of this goal?
We have resources to offer many diverse courses in biology, but many of the equipment and supplies are old, broken, and non-functional.

What are your plans/goals (3-year) regarding this goal?
We would like the following resources to continue to offer innovative and diversified laboratories:

Program Review: Part 1

Rank	Category	Request	Cost
1	Technology	Surface Pros to replace laptop computers for ST 207 to run BIO-PACs	$93,000.00
2	Technology	BIO-PACs (basic + respirometer) - BIO-50A/B	$28,000.00
5	Instructional Supplies	Bio 4 Human Body Models	$6,623.60
6	Instructional Supplies	Field tools and supplies - Bio 21	$1,400.00
7	Technology	Replacement laptop computers for IT 128	$38,400.00
8	Furniture	Replacement of all lab benches in IT 128	$18,560.00
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14	Instructional Supplies	Replacement microscope slides	$700.00
15	Instructional Supplies	Analytical instruments and supplies - Bio 21	$1,388.00
16	Instructional Supplies	Bio 4 Physio Equipment	$536.14
17	Instructional Supplies	Bio 4 Posters	$61.75
18	Technology	PCR Machine Thermo Fisher (1) - BIO-60	$5,210.00
19	Technology	BIO-RAD UV-Visible spectrophotometers (8) - BIO-60	$25,600.00
20	Instructional Supplies	TK6 Tissue Culture Supplies and Cell Line - BIO-60	$2,500.00
21	Equipment	3-tiered seed sprouter - BIO-3,5,8	$640.00
22	Safety	Autoclave maintanence contract (renewed annually)	$8,000.00

EVIDENCE
Do you have assessment data or other evidence that relates to this goal?
To build and sustain a comprehensive college and achieve its visionary goals, we need to offer biology laboratories with up-to-date equipment and supplies. The addition of innovative resources such as these will help make the college competitive in the region.

1. Published data is available of the success of using the Bio-Pac systems to support real-time physiology labs: BIOPAC SYSTEMS HELPS STARK INDUSTRIES LAUNCH VITAL VENTILATOR FOR NASA JPL Here.

2. Assessment data for all life science courses is available. These courses are regularly assessed with overall good student success. Once we increase the availability of Human Biology (BIO-4), we intend to compare the success of students in Anatomy and Physiology courses based on whether they took General Biology (BIO-1) as a pre-requisite or Human Biology (BIO-4) as a pre-requisite. Our working hypothesis is that students with the BIO-4 pre-requisite will have higher success and retention than students with the BIO-

Program Review: Part 1

1 pre-requisite in Anatomy and Physiology (BIO-50A and 50B) courses. Anatomy and Physiology courses, along with Microbiology (BIO-55), are the primary courses taken by students to pursue nursing and other allied health careers. According to ***The Inland Empire Regional Collaborative Health Industry Workforce Report 2017*** (support documentation in this program review) there will be an increased demand for at least 55 healthcare occupations in the next 5 years. Many of these allied health occupations require the above listed courses as pre-requisites. Increasing these BIO course offerings with innovative and diversified resources gives our students the opportunity to pursue these regionally in demand careers.

RESOURCES
Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

Program Review Part 2

2021 - 2024

Curriculum

Are all your courses current (within four years)?
No
What percentage of your courses are out of date?
10% or less
If you have courses that are not current, are they in the curriculum process?
Yes
For out of date courses that are not already in progress of updating, what is your plan?
N/A
Do you have proposals in progress for all the DE courses you intend to file?
Yes
Do you require help to get your courses up to date?
No

Program Review Reflections

What would make program review meaningful and relevant for your unit?
The most meaningful and relevant component of program review is that it provides an avenue to make resource and personnel requests for Biology and Health. It is also helpful to see which courses need assessing and updating. It would be helpful if aggregated data graphs of success and retention were available, in addition to the disaggregated data graphs.

What questions do we need to ask to understand your program plans, goals, needs?
Please continue to ask what resources we need to continue to improve and grow the programs associated with our unit, and to improve student success and retention. Please provide an option to give justification for our resource requests. It would be helpful if the resources were listed by resource for review.

What types of data do you need to support your program plans, goals, needs?
As mentioned previously, it would be helpful if aggregated data graphs of success and retention were available, in addition to the disaggregated data graphs. We would like to see data that follows particular cohorts of students who take BIO-4 to see if they have higher success and retention with fewer equity gaps as students continue through Anatomy and Physiology courses, as compared with students who took BIO-1 to fulfill the pre-requisite for these courses.

If there are any supporting documents you would like to attach, please attach them here.
Program Review Requests 2021.xlsx

Inland Empire Regional Collaborative Health Industry Workforce Report.pdf

Predicting Academic Success of Health Science Students for First Year Anatomy and Physiology.pdf

Effects of Exposure to Part-time Faculty on Community College Transfer.pdf

Resource Requests

2023 - 2024 Update

Resource Request

What resources do we already have?
Old rolling whiteboard that no longer fully erases in IT 128
What resources do you need?
New rolling white board for IT 128
Request related to EMP goal or Assessment?
EMP Goal 10
$ Amount Requested
1,500
Resource Type
ITEM: Equipment, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:

Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.
To be a fully functioning college, teaching equipment like white boards need to be legible. This requests
supports EMP Goal 10 to build a comprehensive and inspiring campus into the region that serves as a
destination for education, commerce, life, and the arts.
This request for my area is Priority #:
6
Is this request:
New

For Administrative Use Only

Funding Status

Notes

Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests
2023 - 2024 Update

Resource Request

What resources do we already have?
8 BIO-PACs for two laboratory rooms
What resources do you need?
More BIO-PACs (basic + respirometer) to offer physiology labs in BIO-50A/B
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
70,000
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.
To prepare future nurses for the workforce, they need to learn physiology. BIO-PACs provide an innovative

way for students to learn physiology, which has been limited in our anatomy and physiology courses.
This request for my area is Priority #:
2
Is this request:
New

For Administrative Use Only

Funding Status
null
Notes
New request for more BIO-PACs
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2023 - 2024 Update

Resource Request

What resources do we already have?
Microscope slides, many of which are damaged or broken

Resource Requests

What resources do you need?
Replacement microscope slides.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
700
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,Department Regular Funding,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.
Microscope slides are an essential component of teaching biology, microbiology, and anatomy and

physiology courses.
This request for my area is Priority #:
5
Is this request:
New

For Administrative Use Only

Funding Status
null
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2023 - 2024 Update

Resource Request

What resources do we already have?
Old anatomy models, many of which are damaged, shared between multiple anatomy labs
What resources do you need?
Additional anatomy models for ST 207.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
4,000
Resource Type
ITEM: Instructional supplies

Resource Requests

Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.
Anatomy models are needed to train future nurses in anatomy and physiology.
This request for my area is Priority #:
4
Is this request:
New

For Administrative Use Only

Funding Status
null
Notes

Council Ranking

2022-23 Council Ranking

2022-23 Notes

2023 - 2024 Update

Resource Request

What resources do we already have?
Printer in IT 128 lab classroom that regularly gets errors - IT cannot repair
What resources do you need?
Replacement printer in IT 128 lab classroom
Request related to EMP goal or Assessment?
EMP Goal 12
$ Amount Requested
900
Resource Type
ITEM: Equipment, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,General Fund
The evidence to support this request can be found in:

Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.
To sustain a comprehensive college, we need technological equipment to work. The printer in IT 128 is necessary for teaching labs in that lab classroom.

Resource Requests

This request for my area is Priority #:
7
Is this request:
New

For Administrative Use Only

Funding Status

Notes

Council Ranking

2022-23 Council Ranking

2022-23 Notes

2023 - 2024 Update

Resource Request

What resources do we already have?
The library has a 1-year subscription to JoVE Science Education to support distance education in the sciences

What resources do you need?
Ongoing annual subscription to JoVE Science Education to support DE courses in the sciences - amount requested is per year

Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12

$ Amount Requested
15,750

Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture

Potential Funding Source(s)
General Fund

The evidence to support this request can be found in:
Program Review: Part 1

Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.

This request for my area is Priority #:
9
Is this request:
New

Resource Requests

2023 - 2024 Update

Resource Request

What resources do we already have?
None - need new equipment to offer California Naturalist (BIO-21)
What resources do you need?
Analytical instruments (water quality testers) to offer California Naturalist (BIO-21)
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
2,600
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
Please summarize how this request supports one or more EMP Goals, Equity goals, your program plans or goals, and/or is supported by outcomes assessment data.

This request for my area is Priority #:
11
Is this request:
New

Resource Requests

2022-23 Council Ranking

2022-23 Notes
Previous items discontinued before order was completed

2022 - 2023 Update

Resource Request

What resources do we already have?
The library has a 1-year subscription to JoVE Science Education to support distance education in the sciences

What resources do you need?
Ongoing annual subscription to JoVE Science Education to support DE courses in the sciences - amount requested is per year

Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12

$ Amount Requested
15,000

Resource Type
ITEM: Equipment, Services, Software, Furniture

Potential Funding Source(s)
General Fund

The evidence to support this request can be found in:
Program Review: Part 1

This request for my area is Priority #:
9

Is this request:
New

For Administrative Use Only

Funding Status

Notes

Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests
2022 - 2023 Update

Resource Request

What resources do we already have?
None
What resources do you need?
Funding for Jesus Reyes to attend the Society for Integrative and Comparative Biology annual meeting ($150 registration, $270 airfare, $690 hotel)
Request related to EMP goal or Assessment?
EMP Goal 4
$ Amount Requested
1,010
Resource Type
BUDGET: Request Ongoing Funding (Professional Development, Department or Program Support, Outreach, Marketing)
Potential Funding Source(s)
Other/None
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
10
Is this request:
New

For Administrative Use Only

Funding Status

Notes

Council Ranking

2022-23 Council Ranking

2022-23 Notes

2022 - 2023 Update

Resource Request

What resources do we already have?
Old laptops
What resources do you need?
BIO-PACs (basic + respirometer) to offer physiology labs in BIO-50A/B

Resource Requests

Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
70,000
Resource Type
ITEM: Equipment, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
2
Is this request:
Revised

For Administrative Use Only

Funding Status
Completed/Funded
Notes
More needed new requested being added for 2023-24
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Old laptops that no longer charge, many do not work, and none are adequate to run BIO-PACs for physiology labs.
What resources do you need?
Surface Pros to replace laptop computers in ST 207 to run BIO-PACs for physiology labs
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
93,000
Resource Type
ITEM: Technology
Potential Funding Source(s)
General Fund,Lottery Instructional Supplies,Instructional Equipment Allocation
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
1

Resource Requests

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Forwarded to VPAA for funding consideration
Council Ranking

2022-23 Council Ranking

2022-23 Notes
purchased laptops instead of Surface Pros

2021 - 2024

Resource Request

What resources do we already have?
Old laptops
What resources do you need?
BIO-PACs (basic + respirometer) to offer physiology labs in BIO-50A/B
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
28,000
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
2

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Forwarded to VPAA for funding consideration
Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests

2021 - 2024

Resource Request

What resources do we already have?
6 Full-Time Faculty and 17 Part-Time Faculty in Biology
What resources do you need?
Full-Time Biology Instructor
Request related to EMP goal or Assessment?
EMP Goal 1,EMP Goal 9,EMP Goal 7
$ Amount Requested
150,000
Resource Type
FACULTY: New Full time Faculty (Associate faculty requested through Dept. Chair and Dean)
Potential Funding Source(s)
General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
4

For Administrative Use Only

Funding Status
In Progress
Notes
NA
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
3 Full-Time Laboratory Technicians and 1 Part-Time Laboratory Technician
What resources do you need?
1 Full-Time Laboratory Technician
Request related to EMP goal or Assessment?
EMP Goal 1,EMP Goal 9,EMP Goal 7
$ Amount Requested
85,000

Resource Requests

Resource Type
STAFF: Classified Professional, Confidential, Manager
Potential Funding Source(s)
General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
5

For Administrative Use Only

Funding Status
No Action-Insufficient funding
Notes
Forwarded to Executive Cabinet for funding Consideration
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Histology slides shared with BIO-61, models borrowed from anatomy labs if not in use by anatomy labs
What resources do you need?
Human Body Models for Human Biology BIO-4 in IT 128
Request related to EMP goal or Assessment?
EMP Goal 3,EMP Goal 7,Achievement Data,EMP Goal 12
$ Amount Requested
6,700
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,Equity,General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority #:
6

For Administrative Use Only

Funding Status
Completed/Funded

Resource Requests

Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
6 field reel tape measures, 4 binoculars, 4 butterfly nets
What resources do you need?
Field tools and supplies to offer California Naturalist (BIO-21), a new field course
Request related to EMP goal or Assessment?
Assessment,EMP Goal 7,EMP Goal 12
$ Amount Requested
1,400
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1,Assessment Review
This request for my area is Priority #:
7

For Administrative Use Only

Funding Status
Completed/Funded
Notes
already purchased. Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests

2021 - 2024

Resource Request

What resources do we already have?
Old laptops that no longer charge, and many of which no longer work
What resources do you need?
Replacement laptop computers for IT 128
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
38,400
Resource Type
ITEM: Technology
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
3

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Updated to Priority #3, . These laptops have stopped working and can no longer be updated, so they are more urgently needed. Per Teresa FriedrichFinnern 3-18-2022,
Forwarded to Technology Committee
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Lab benches with the benchtop separated from the legs, dangerous to use
What resources do you need?
Replacement laboratory benches in IT 128
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12

Resource Requests

$ Amount Requested
30,000
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
1

For Administrative Use Only

Funding Status
No Action-Insufficient funding
Notes
Forwarded to VPAA for funding consideration
Council Ranking

2022-23 Council Ranking

2022-23 Notes
Updated amount to reflect increase in costs, Priority # 1

2021 - 2024

Resource Request

What resources do we already have?
The library has a 1-year subscription to JoVE Science Education to support distance education in the sciences
What resources do you need?
Ongoing annual subscription to JoVE Science Education to support DE courses in the sciences - amount requested is per year
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
15,000
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
9

Resource Requests

Funding Status
Completed/Funded
Notes
Completed
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
A dozen out-of-date field guides from 30 years ago
What resources do you need?
Field guides for students to use in California Naturalist BIO-21 (a new course). These guides may also be used during field trips in other courses.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
900
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Assessment Review,Program Review: Part 1
This request for my area is Priority #:
10

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests

2021 - 2024

Resource Request

What resources do we already have?
Borrowed models from anatomy if Anatomy and Physiology courses are not using them
What resources do you need?
Human organ models for Human Biology (BIO-4).
Request related to EMP goal or Assessment?
EMP Goal 3,EMP Goal 7,Achievement Data,EMP Goal 12
$ Amount Requested
6,700
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund,Equity
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority #:
11

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Old anatomy models, many of which are damaged, shared between multiple anatomy labs
What resources do you need?
Anatomy models for ST 207.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
4,000

Resource Requests

Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
12

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes
More needed, new resource request submitted for 2023-24

2021 - 2024

Resource Request

What resources do we already have?
Old oxygen meters, several of which are broken
What resources do you need?
Replacement oxygen meters for IT 128.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
1,300
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
13

For Administrative Use Only

Funding Status
Completed/Funded

Resource Requests

Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Microscope slides, many of which are damaged or broken
What resources do you need?
Replacement microscope slides.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
700
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,Department Regular Funding,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
14

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes
More needed new resource request to be submitted for 2023-24

Resource Requests

2021 - 2024

Resource Request

What resources do we already have?
None - need new equipment to offer California Naturalist (BIO-21), a new course
What resources do you need?
Analytical instruments to offer California Naturalist (BIO-21), a new course.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
1,400
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
15

For Administrative Use Only

Funding Status
No longer needed
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes
Items discontinued before order was completed

2021 - 2024

Resource Request

What resources do we already have?
Equipment borrowed from anatomy labs if they are not in use
What resources do you need?
Physiology equipment for Human Biology (BIO-4).
Request related to EMP goal or Assessment?
EMP Goal 3,Achievement Data,EMP Goal 7,EMP Goal 12
$ Amount Requested
540

Resource Requests

Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,Department Regular
Funding,Equity,General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority #:
16

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Posters borrowed from anatomy labs if not in use
What resources do you need?
Anatomy posters for Human Biology (BIO-4).
Request related to EMP goal or Assessment?
EMP Goal 3,Achievement Data,EMP Goal 7,EMP Goal 12
$ Amount Requested
65
Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,Department Regular
Funding,Equity,General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority #:
17

Resource Requests

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Old PCR machine that needs replacing
What resources do you need?
PCR Machine Thermo Fisher (1) for majors' course BIO-60.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
5,200
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund,Guided Pathways
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
18

For Administrative Use Only

Funding Status
Completed/Funded
Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

Resource Requests
2021 - 2024

Resource Request

What resources do we already have?
Old spectrophotometers
What resources do you need?
Replacement BIO-RAD UV-Visible spectrophotometers (8) for majors' course BIO-60.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
25,600
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
19

For Administrative Use Only

Funding Status
No Action-Insufficient funding
Notes
Forwarded to VPAA for funding consideration
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
None - previous cell line died
What resources do you need?
TK6 Tissue Culture Supplies and Cell Line for majors' course BIO-60.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
2,500

Resource Requests

Resource Type
ITEM: Instructional supplies
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
20

For Administrative Use Only

Funding Status
In Progress
Notes
Faculty would like to to defer this item to another year. They would like to do more research on what specific items they need for new experiments.
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Manual seed sprouters
What resources do you need?
3-tiered seed sprouter for BIO-3, BIO-5, and BIO-8.
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
640
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
21

For Administrative Use Only

Funding Status
Completed/Funded

Resource Requests

Notes
Approved
Council Ranking

2022-23 Council Ranking

2022-23 Notes

2021 - 2024

Resource Request

What resources do we already have?
Warranty on autoclave expires in January 2022
What resources do you need?
Autoclave maintenance contract (renewed annually or other regular cycle).
Request related to EMP goal or Assessment?
EMP Goal 7,EMP Goal 12
$ Amount Requested
8,000
Resource Type
ITEM: Equipment, Technology, Services, Software, Furniture
Potential Funding Source(s)
Instructional Equipment Allocation,Lottery Instructional Supplies,General Fund
The evidence to support this request can be found in:
Program Review: Part 1
This request for my area is Priority #:
22

For Administrative Use Only

Funding Status
No longer needed
Notes
APPROVED
Council Ranking

2022-23 Council Ranking

2022-23 Notes

Submission

2021 - 2024

All parts of my Program Review have been completed and it is ready for review
Yes

2022 - 2023 Update

I would like to submit this update
Yes
The additions or updates to my Program Review can be found in:
Resource Requests