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| **Berkeley City College’s mission is to provide our diverse community with**  **educational opportunities, promote student success, and to transform lives.** |

**Introduction and Directions**

Berkeley City College (BCC), in conjunction with the Peralta community College District, has an institutional effectiveness process which consists of the following components: a District-wide Strategic Plan which is updated every six years; Comprehensive Program Reviews (CPRs) which are completed every three years; and Annual Program Updates (APUs) which are completed in non-program review years.

**TIMELINE**

The Annual Program Update (APU) for 2023-2024 marks its 3rd year in the current cycle.

The APU 2023-2024 timeline has been developed for each program and services to guide through the semester. Please review and work with your Deans, Managers, and/or Supervisors to complete this APU.

During 2022-2023, BCC has completed its Educational Master Plan 2024-2028 where we can base our APU review and analysis on the 5 strategies for success and 3 indicators of success that will lead us to achieve our goal of equitable student completion.



The APU is intended to primarily focus upon planning for the subsequent year based on the assessment of the prior year and determine where and how we can improve to support the goal of equitable student completion. It is important to be reminded that the EMP incorporated the State Chancellor's [Vision for Success](https://www.cccco.edu/-/media/CCCCO-Website/Files/Communications/101920-ccc-vision-onepager-accessible-final.pdf) as well as [Student Centered Funding Formula (SCFF)](https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Student-Centered-Funding-Formula) in our five year roadmap and our APU process. Please use these foci as your reference to prioritize your department and other goals.

**RESOURCE REQUEST**

In this process of making continuous quality improvement, there is an opportunity for each program, student services, and department to request resources that support achieving the stated goals.

The APU process directly leads to the institutional resource allocation process and budget planning facilitated by the Institutional Planning and Allocation of Resources (IPAR) Committee for the following academic year (2023-24). The process for this can be found here ([2023-24 APU Timeline](https://drive.google.com/file/d/1xiKMI84yGCETRjx-cNfQRClCAe3Cu63X/view?usp=sharing)). This is an opportunity for each department to request resources in Fund 01 (General Funds) to IPAR that will support your department goals and set outcomes that support BCC’s goal of Equitable Student Completion.

**TECHNOLOGY REQUEST**

Finally, for the resource request section, please connect with your Deans, managers, and supervisors regarding your technology needs so that you can be informed about the equipment that is already addressed in the BCC Technology Refresh Plan. If your requests are covered in the Refresh Plan, you do not need to request them in this APU.

If you have questions regarding other material in the Annual Program Update, please contact your Dean or Manager. If you have questions regarding data, please contact Dr. Phoumy Sayavong, Senior Researcher and Planning Analyst (psayavong@peralta.edu).

**Please email the completed Annual Program Update to your Dean by November 30, 2023.**

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| **College Profile** |
| [Click here to view the Berkeley City College Student Demographics Dashboard](https://app.powerbi.com/view?r=eyJrIjoiOWQ0NDc2M2YtZDUyMi00MjdkLTljZTktOWI3MzQyYzdlNDc0IiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9).  This 2-page dashboard will provide data on the demographics of our student body from the past two years such as headcount, ethnicity, enrollment status, age group, educational goals, and majors. |

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| **College Outcomes** | **2019-20** | **2020-21** | **2021-22** | **2022-23** |
| Full Time Equivalent Students (FTES) | 3,931 | 3,622 | 3,259 | 4,024 |
| Productivity (Avg. Goal = 17.5) | 13.2 | 13 | 10.9 | 13.9 |
| Success Rate (%) | 77% | 75%\* | 70%\* | 68%\* |
| Degrees + Certificates Awarded (#) | 1,109 | 1,027 | 960 | 855 |

*\*Excludes “EW” grades*

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**To view prior Program Reviews,** [**click here**](https://drive.google.com/drive/folders/1cJTL936yJGJVKo5P4OGOf2qzsMu3gEqM?usp=share_link)**. To view prior Annual Program Updates,** [**click here**](https://drive.google.com/drive/folders/1NcFLqqL0DhYtaKQ6ntaejh1z7qtGao1F?usp=sharing)**.**

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| **1a. Department Mission**  Please verify the mission statement for your department. If your department has not created a mission statement, provide details on how your department supports and contributes to the [College’s mission](https://www.berkeleycitycollege.edu/bccpub/about-bcc/). | | |
| The goal of the Science Department at Berkeley City College is to provide students with the knowledge and skills they will need in order to perform successfully in the next stage of their careers, whether that stage involves transfer to a 4-year institution, entering a professional program of study such as nursing, or entering the workplace in a specialized field such as biotechnology. Another important goal is to build steppingstones to science to make careers in science accessible to students who have little or no background in science and math but who have been excited by the news and the potential of interesting jobs in biotechnology and other science related fields. | | |
| **Name(s) of member(s) completing this APU** | **Department** | **Completion Date** |
| Barbara Des Rochers  Randy Yang | Science & Biotechnology |  |
| **List faculty names with assignments in fall 2023.** | | |
| Full Time | Part Time | |
| Barbara Des Rochers  Randy Yang  Erika Yeh | Lili Banihashemi  Jacob Bertran  Scott Blitch  Julia Chang  Linda McPheron  Nataliia Rector  Douglas Schmidt  Elena Givental (GEOG) | |

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| **1b. Department Priorities & Goals** |
| Based on the [Educational Master Plan](https://www.berkeleycitycollege.edu/prm/educational-master-plan-2024-2028-2/), [Shared Vision](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https:/www.cccco.edu/-/media/CCCCO-Website/Files/Communications/101920-ccc-vision-onepager-accessible-final.pdf), [SCFF](https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Student-Centered-Funding-Formula), and your department mission, what are your department’s priorities and goals for 2023-24? Look at last year’s priorities and goals, review and assess any changes you would like to make for this year. |
| **2022-2023:**   * The Science department continues to look for acceptable OER textbooks for the students. BIOL 1A and 1B are using OPENSTAX books and more faculty teaching BIOL-10 are transitioning to OPENSTAX. The biotechnology faculty have not been able to find suitable OER textbooks for their students enrolled in the specialty classes and instead make available all course materials, lectures, research papers and laboratory manuals free of charge. * Special Learning Techniques that evolved out of a joint grant with UC Berkeley and CSUEB titled *Closing Equity Gaps in Introductory Biology through Faculty Professional Development in Active Learning Practices* - were implemented in many biology classes. Faculty implementing what they learned from numerous COP sessions to discuss and analyze teaching methods considered the results worthwhile. * AS-T degree in Physics was launched, fall 2023. * AS-T degree in Environmental Science was launched, fall 2023 (see note below)   **2023-2024:**   * + New AS-T degrees: Geography will hopefully be launched by spring 2024. The delay has been due to the maximum allowable unit value, and this will hopefully be resolved by fall 2024.   + Work with physics faculty across the district to reduce the unit value of Physics 3 series from 5 units to 4 units which will permit retention of Environmental Science AS-T which will exceed the 60 unit cut off when the Math 16 Calculus series is granted approval to change from 3 units to 4 units.   + Launch a new course in Bioinformatics which will eventually be part of a new Data Science Certificate that will be funded in part by a UC Berkeley grant awarded this past year in Data Science. The course will also permit the biotechnology students an introduction to this critical discipline.   + Explore support courses (bootcamps, special study sessions, development of a new 0.5-1.0-unit course addressing basic concepts, study techniques, etc.) to improve student success and address equity issues. While the science department has seen a marked improvement in completion and retention rates in all disciplines, particularly when compared to the college average, inequities remain for some groups. These support courses/ activities are needed by all biology students, but particularly those enrolled in Biology 10, which is the gateway to many fields.   + Request a full-time faculty position to take responsibility for the Biology 10 courses, support courses and activities and contribute to a new Environmental Science program.   + Continue to explore Zero-cost options.   + Look for additional materials and innovative experiments to incorporate into the lecture and lab classes that will have broader appeal and cultural relevance to our diverse populations. |
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| **2. Institutional Assessment** |
| Berkeley City College is committed to a culture of assessment to improve instruction, services, and institutional planning.  Findings from SLO, PLO, ALO assessments, and program review data are used to direct resources for areas that are institutional priorities that are articulated in the Educational Master Plan and BCC Strategic Plan.  Due to the critical role that course and program assessments play in our institutional planning, and to be in compliance with the Accreditation requirements, assessments must be completed to qualify for the APU resource allocation requests.  <[Click here to view your Round 5 Assessment Calendar](https://docs.google.com/document/d/1DgVZLRmnKQj1jCNucuCNmTB0Wp1F3vLA/edit?usp=drive_link&ouid=105861965924346219496&rtpof=true&sd=true)>> |
| **2a. What action plans did your department identify upon the assessment of each SLOs and/or PLOs?  Based on your SLO assessment, what did you learn that your department is doing well and areas that you need to improve so that student success rates can be improved?** |
| We have not had the opportunity to review the SLOs for each discipline. |
| **2b. Describe the status of SLO and PLO completion in Rounds 5 of the Assessment Cycle. Identify the percentage of completion. Briefly describe what needs to be done to reach 100% completion. Identify issues or concerns that may prevent your department from completing assessments of SLOs and/or PLOs.** |
| Semester is not yet completed, and ‘Round 5’ assessments are in progress. However, the biology department has been impacted this past year by the lack of support personnel to assist with the development and set up of laboratory classes and assist with orders and inventory maintenance. Two staff members, a coordinator, and a technician, have recently been hired and this should allow time to address assessments next semester.  **Suggestion for reaching 100% completion:** One critical problem we face in many of our classes is the lack of preparation or pre-exposure to basic concepts and terminology on the part of the students and this can be a major barrier to achievement. The language of science in biology, for example, can be daunting, particularly for recent immigrants, but also for students who did not take general science courses in high school, or who dropped out of high school. We would like to create a series of boot camps or study sessions that would occur either before the start of the academic year, or during the semester, e.g., a guided study session each week, or both. We would seek funding to support this effort which may take a few years:  Years 1, 2– brainstorm and conduct a trial run, e.g., boot camp or guided group study session and decide on assessment strategies  Year 3– conduct planned boot camps/study sessions/discussions and evaluate through the SLO and other assessments  Year 4 – Create and seek curriculum approval for either a non-credit or credit course. |

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| **3.** [**Student Equity, Success, & Completion**](https://app.powerbi.com/view?r=eyJrIjoiNjk3NDJjOTItNzI5MS00MDhjLWJhN2EtZjcxNzU4OTBiZDBjIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)(<--click on the link) |
| **Using the data dashboards provided above, review and reflect upon the outcome trends for your department. Please also review overall BCC’s data linked here.**  For assistance with data dashboards, contact Phoumy Sayavong at [psayavong@peralta.edu](mailto:psayavong@peralta.edu?subject=Program%20Review%20Data%20Dashboard%20Assistance) |
| **We have focused on equitable completion for Latinx and African/African American students How are African/African American and Latinx students doing in success and completion in your department, compared to the BCC overall success and completion rate?** |
| **2022-2023:**  Over the past 3 years, we have seen success among the following groups: Black/African Americans, Hispanics, and Asians, and this is also seen college wide. For biology specifically, we see an increase in success in the Asian population. We note that the white population is declining.  Astronomy: Success and completion rates are much higher than the college rates.  2023-2024  **Biology -**  The headcount for Black/African American and LatinX (as a proportion of the overall college) students in Biology has remained the same. However, the completion /retention rates in biology have increased for both LatinX and Black/African American populations, particularly the latter. All demographics show a higher rate of completion/retention as compared to the school rates. However, aside from biology, we see that all other science disciplines have seen a decrease in student headcount compared to the school-wide counts. This may be problematic for future Biology enrollment as many of those courses have chemistry prerequisites.  **Astronomy –**  Astronomy has consistently high rates of completion and retention across demographics. They are more reflective of schoolwide demographic performance without the gains seen by biology for Black / African American and LatinX populations, but with a similar higher performance than the school. Overall enrollment continues to decline. This may be due to the inclusion of math prerequisites, which have since been reversed.  **Geography –**  Geography rates are also reflective of schoolwide demographic performance without the gains seen by biology for Black / African American and LatinX populations, but with a similar higher performance than the rest of the school. Enrollment continues to decline, likely due to the expansion in geography offerings at other colleges, coupled with a lack of support at BCC. |
| **What do you see as key factors in your department that contributed to an increase in success and completion rates of these student groups?** |
| **2022-2023**  Special Learning Techniques that evolved out of a joint grant with UC Berkeley and CSUEB titled *Closing Equity Gaps in Introductory Biology through Faculty Professional Development in Active Learning Practices* - were implemented in many biology classes.  **2023-2024**  Black/African American and LatinX completion/retention rates have increased in the past 5 years, while Asian and White rates have remained the same. This data was measured relative to the completion/retention rates of these groups in the college. For example, in the 2022-2023 academic year, the Black/African American and LatinX completion rate in biology was 74.3% and 73.7%, respectively, compared to completion rates in the school of 56.8% and 63%.  The completion/retention rates for Black/African American and LatinX students trail Asian/White students by 15-20% in the school overall, but only trail by 10-15% in the sciences. Another indicator of the success in the sciences is that these numbers are higher than for those at CoA (College of Alameda), Laney, and Merritt. A dramatic increase.  The reasons for the success of Black/African American and LatinX students in the sciences at BCC may be due to (1) individual instructor efforts in accommodating students in distress, (2) the addition of a much-needed new full-time Biology faculty, (3) the availability of internship programs such as that provided by the CIRM (California Institute of Regenerative Medicine) grant and the enthusiasm they generate, (4) comradery that comes with a small college and student groups such as the STEM (Science, Technology, Engineering, Math) club, and (5) other wrap around support provided by student services. |
| **What are some strategies for improvements your department can make?** |
| **From 22-23** - We always can improve our strategies by fine tuning our teaching techniques.  **2023-2024**  The completion & retention rates of Black/African American and LatinX populations is significantly lower that Asian & White populations. However, these rates reflect the entire school population and not the science department itself. For example, the Black/African Americans & LatinX completion rates in the sciences are about 120% higher than the school’s completion rate compared to Asian and White completion rates which are 115% higher than the school’s completion rate. Thus, as a discipline, the Sciences are closing the gap that previously existed for these students. While the science department feels there is more that can be done to close the gap (see below), further improvement would benefit from efforts exerted at the institutional level.  Another thought regarding the apparent disparity between the completion/ retention rates in the sciences versus those of the college is that the success seen in the sciences may be explained by a student population that is more self-selective and focused on career and transfer goals. This would give an added incentive for the science department to make every effort to close the achievement gap. The expansion of the tutoring program would be one initiative, along with additional student workers assisting in the laboratory classes. One past effort (pre-pandemic) that proved successful was a boot camp that started the week before classes and then continued to meet weekly throughout the semester as a guided study group. Students, particularly the historically underserved, are not used to such support programs and can be hesitant to seek out support. A common suggestion by equity outreach programs at schools such as UC Berkeley and UC Davis are for minority students to seek out help when needed, emphasizing the idea that struggling minorities have difficulty recognizing the legitimacy of support, while their more mainstream peers are more outgoing in pursuit of assistance. One strategy we can employ is to institutionalize the use of tutoring in the classroom by having assignments specifically to utilize tutoring services. Such a strategy would first require adequate and sustained support of the BCC tutoring program.  Another initiative is to incorporate culturally relevant pedagogy in the lecture and lab classes as mentioned in the department goals. These seem to be most appropriate at the introductory level where interest can be nurtured and the relevance to personal lives can be integrated into student understanding. |

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| **4.** [**Enrollment Trend and Productivity Dashboard**](https://app.powerbi.com/view?r=eyJrIjoiNWJlOWZmYTEtNTY0MC00MDhkLWE5OTAtYmJjZjIxNzJiNWViIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)(<--click on the link)  \*Note that completion and retention rates are presented with the inclusion and exclusion of excused withdrawals (EW) and military withdrawals. |
| **The SCFF prioritized 70% of our college’s base allocation on FTES (full-time equivalent student) from enrollment. Review the enrollment trends for your program and describe the strategies you will implement to increase enrollment.** |
| Nearly all the science courses are at capacity. Gains in Biology may be in part due to increased enrollment in CE courses that traditionally have had lower enrollment.  Unless there is an increase in FTEF, it is unlikely we can increase FTES. |
| Community Colleges are funded based on the [Student Centered Funding Formula (“SCFF”)](https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Student-Centered-Funding-Formula) which is comprised of the following allocations:   |  |  | | --- | --- | | **Student Centered Funding Formula: Focus and Priorities** | | | **% Of Allocation** | **Categories** | | 70%  Base Allocation: FTES (Enrollment) | * Credit FTES * NonCredit FTES * Special Admits (Dual Enrollment, etc.) | | 20%  Supplemental Allocation | * Pell Grant * AB 540 * Adult School * Promise Grants | | 10%  Student Success Allocation | * Associate degrees & Certificates (??) * ADTs * 9 or more CE units * Transfer * Transfer level Math and English in the first year (AB 1705) | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **College Outcomes** | **2019-2020** | **2020-21** | **2021-22** | **2022-23** | | Full Time Equivalent Students (FTES) | 3,931 | 3,622 | 3,259 | 4,024 | | Pell Grant Recipients | 2,281 | 2,181 | 1,826 | 1,837 | | College Promise Grant Recipients | 4,143 | 4,011 | 3,500 | 3,991 | | AB 540 Students | 51 | 22 | 69 | 89 | |

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| **5. Dual Enrollment** |
| **With the continued decline in overall enrollment for college going population from high school to college (see Service Area Enrollment Pipeline below), it is important for us to look at who will be coming to BCC in the next 5 years. Reviewing the data provided below, what strategies would your department employ to address bringing more high school students to BCC?** |
| *Respond here:*   * Develop an Environmental Science Program. Surveys of incoming students during Science Professional Days indicate the top field of interest is environmental science. * Continue to support the “*I decide”* summer program and offer classes in ecology, human biology and introductory biology aimed at high school students. * Continue to share information re: speakers and topics for the department’s Luncheon Seminar Series with local high school faculty. A popular Evening Science Seminar Series offered in the past attracted many high school classes. We need to re-establish this series that was open to the public and filled the auditorium. * Increase collaboration with AANAPISI program and learning community to learn how best to attract Native Americans and Pacific Islanders into science offerings. The science department has 2 Asian American and one Hispanic full-time faculty that can be leveraged to provide an increase sense of community. * Increase accommodation for commuters. Berkeley is expensive to live in (and park!) and more families are moving further out of the immediate vicinity. Consider increasing the college's availability during weekends, Sundays included, and schedule late start or short-term classes during these times. Provide lab classes that meet just once a week for longer hours, rather than twice a week for shorter hours and thus reduce the need for an extra commute. |

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| **6.** [**Equitable Student Completion**](https://app.powerbi.com/view?r=eyJrIjoiNjk3NDJjOTItNzI5MS00MDhjLWJhN2EtZjcxNzU4OTBiZDBjIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)(<--click on the link)  \*Note that completion and retention rates are presented with the inclusion and exclusion of excused withdrawals (EW) and military withdrawals.  If you need more guidance with this item, click here for additional support.[Click here for additional guidance for how to view and use equity data](https://drive.google.com/file/d/14C9cxxXt_YAzK_LJEVPSD_fJwwcWUVps/view?usp=sharing). If you would like to view BCC’s Equity Plan, [click here](https://drive.google.com/file/d/1CelN9o5mrlTVVx3ibqDDdj11PcATAjfM/view?usp=sharing). | |
| **On page 3 of the “Course Completion and Retention Rates by Subject” dashboard, what are the completion and retention trends by gender, age, ethnicity in your department?** | |
| The above 3 charts reflect enrollment by gender for 2018-2022. Females in Biology are slightly over-represented, while male and non-binary are under-represented. The data shows that completion and retention are similar for all genders and slightly higher than that of the school. The lower representation in the male population is reflective of the field, it is not specific to BCC.    The above three charts reflect enrollment by age group between 2018 and 2022. In the Life Sciences (Biology is used), there are fewer younger (under 18) students compared to the overall school population. Among 19–24-year-olds, the sciences are over-represented, with slight drop offs seen in the next 2 age groups; students >35 show the lowest enrollments. Completion and retention across all age demographics are higher than the school.  The lower number of younger students reflects the necessity of pre-requisites which cannot be altered. The reduction in representation in older adults may reflect the difficulty of the subject area and whether the coursework leads to a marketable skill in a reasonable amount of time. The two certificates in Biotechnology are designed for all ages and can be completed within a year’s time, making them attractive to an older student interested in re-tooling.  BCC awards ASTs at a far higher rate than other Peralta colleges and is the ONLY college to offer an AST in biology. However, Laney outpaces BCC in total conferred degrees, most of which are AA/AS degrees. | |
| **Describe which activities and/or strategies your program used to contribute to the gains? What support does your program need to accelerate or improve these outcomes?** | |
| The gains seen in returning students could be due to the re-emergence of the CIRM internship program and/or the introduction of more pre-med/nursing courses, e.g., Physiology. It is supported by faculty observation of students enrolled in their classes. Many students entering the biotech program or aiming for careers in the allied health fields are college graduates and older students. | |
| [**Degrees and Certificates Dashboard**](https://app.powerbi.com/view?r=eyJrIjoiZjU2M2M5MzItOTcwZi00Y2U1LWJmODUtYTc0YjlhZGI2ZDhjIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSectionde32556e136b0a8caccd)(<--click on the link) |
| **Review the data on page 1 of the “Degrees and Certificate Awards Trends” Dashboard.**  **What are the award trends for your department (e.g., overall, by gender, age, and ethnicity)?** |
| The above 3 graphs reflect the types of degrees awarded among the different ages and ethnic groups. The highest growth was seen in the Biotechnology degree, in older age groups, and among white students. However, the degree totals for age groups do not add up correctly suggesting there may be errors in dashboard data.  Many students in biotechnology programs throughout California and across the nation have tended to be older. While recent high school graduates enroll in selected classes in BCC (Berkeley City College) program, they are not in the majority, and rarely complete an A.S. degree, preferring to transfer to a 4-year school as soon as possible. Thus, Biotechnology training programs such as the one at BCC, attract and retain students who are (1) those seeking to re-tool into a new and exciting field, (2) recent college graduates in need of more laboratory training, (3) technicians in the industry in need of updating their skills, and (4) recent immigrants with previous degrees in the sciences seeking to gain entry into the workforce as quickly as possible.    Biology has seen growth in degree awards as compared to the school in general, which has seen a decline. |
| **Describe which activities and/or strategies your program used to contribute to the gains? What support does your program need to accelerate or improve these outcomes?** |
| It is difficult to know all that contributed to the gains in biology and likely many factors have contributed (see answer to question 3 above). The gains seen in the biotechnology program could be due to the addition of a new faculty member and the availability of internships. The Biotechnology program was awarded a $2.8M five-year grant that affords students paid internships in local academic research labs. This is aa wonderful opportunity that will give students a boost in the workplace. We have a grant with Bayer Pharmaceuticals that likewise affords students internship experience. We have made connections with LBNL, DOE (Department of Energy) and UCSF Benioff Children’s Hospital that award internships that many of our students have received over the years. We have contacted many industry laboratories to place our students in jobs and/or arrange internships. The Biotechnology Program needs support in the form of release time and/or compensation for faculty engaged in supporting and growing this valuable program. The program was overseen for years by a Coordinator/Faculty, a position that has been disregarded in recent years at BCC but remains in place for Laney’s Biomanufacturing Program and other Biotechnology programs in the Bay Area.  To continue supporting all our biology offerings and students we need more full-time faculty. We are requesting one faculty position this year to oversee and organize the Introductory Bio 10 classes and participate in developing our Environmental Science program. |
| [**Transfer Dashboard**](https://app.powerbi.com/view?r=eyJrIjoiZmJlODJiODktZjM0OC00ZWIwLWIzNDMtN2Y1Yzc3ZGFhNGRhIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9)(<--click on the link) |
| **Review the data on the “Transfer” Dashboard.**  **What are the award trends for your department (e.g., overall, by gender, age, and ethnicity)?** |
| There is no disaggregated data by discipline. BCC outperforms every other Peralta college. |
| **Describe which activities and/or strategies your program used to contribute to the gains? What support does your program need to accelerate to improve these outcomes?** |
| * More transfer programs / orientations. * A program where students can begin familiarizing themselves with 4-year universities. * The development of a full-scale Career and Transfer Center at BCC is needed. |

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| **7. Curriculum based on Pathways for Equitable Completion** |
| Based on the curriculum mapping and planning of your program answer the following questions. |
| **What specific plans does your department have for sequencing degrees and programs to ensure students successfully complete the programs in the least amount of time?** |
| * The Biotechnology Program has completed its sequencing of degrees and certificates for Guided Pathways. Each of the certificates, along with the A.S. degree, have been designed to allow students to either enter the job market or transfer to a 4-year school to complete a Baccalaureate degree. In the latter situation, the biotechnology offerings include opportunities for the students to take transfer level classes for a 4-year school, while at the same time acquiring a skill set in focused laboratory classes that they can use to support themselves as they progress through their education. * All courses offered in Biotechnology are acceptable for transfer credit in both UC/CSU and 3 courses are directly transferrable for credit (via C-ID matched courses) to CSU (California State University) programs in biotechnology. The course in Scientific Literature and Writing is acceptable as a transfer level course in critical thinking for both UC (University of California) and CSU thus eliminating the need for students to take a separate course in critical thinking. * Students are given credit for prior college work where appropriate in all science department degree and certificate programs. * We are working towards reducing the number of units in the Physics 3 series (A, B) across the district which will allow degrees such as the AST in Environmental Science to continue. At present, the change in unit value for one of the math series (16A, B) will prevent this program's continuation as it will exceed the maximum units allowable by one unit. |

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| **8. Engagement** |
| **Discuss how faculty and classified staff have engaged in institutional efforts such as committees, presentations, and departmental activities. Please list the committees that full-time faculty participate in.** |
| Biology Faculty are involved in a substantial portion of shared governance.  **I. District Committees**   * CIPD (including subcommittees) * CE (Career Education) * Facilities (co-chair)   **II. College Committees**   * Academic Senate * Assessment * Curriculum * Facilities * Career Education (CE) * Distance Education (DE) * Dual Education * Guided Pathways * Hiring Committees (chair and co-chair) * Learning Resources/Tutoring * Roundtable * Professional Development * Technology (co-chair)   **Science Department**   * Advisory Board Meeting: Science Dept * Science Seminar Series * Science Informational Days organizational meetings * STEM club (serve as advisors) * DOE-CCI Program   **Grants**   * Strong Workforce * Perkins * CIRM * Bayer Community partnership * Data grant with UC Berkeley   **Professional Liaisons/Outreach**   * UC Berkeley research laboratories * UCSF Research laboratories * Local Biotechnology laboratories, e.g. Bayer, * UCSF Benioff Children’s Hospital (formerly CHORI) * LBNL and LLNL * SACNAS- develop a chapter * Cal Teach * Job Fairs   **Career Professional and Academic Mentorship**   * Counsel students re: future pathways, coursework * Provide Letters of Recommendation * Provide guidance and review for student Resumes * Serve as job reference * Post Job Announcements, Internships, Summer Workshops * Support students during their job interviews * Meet with counselors to review changes in courses/programs * Review requests for course substitutions |
| 1. **Discuss how collaborations with other support services, programs, departments, or administrative units helped your department achieve its goals?** |
| Like all the areas within the BCC Community, the sciences value, engage and collaborate with all our sister communities. Following is a brief list of those who we work with across the college and who have supported our department as we provide our students with the best education and experience:   * We collaborate with Counselors as they guide and support our students as they complete our programs and get ready to transfer or enter the workforce. We also meet with the counselors regularly to go over changes in our programs. * We collaborate with the learning communities (UMOJA, PUENTE), for example, by chaperoning college visits to UC Davis. * Administrative support has been instrumental in facilitating Grant processing. * We collaborate with tutoring to recruit and train tutors to support the LRC and our lab classes. * MMART has provided media production capacity to produce outreach materials such as posters and advertising videos. * Audio-Visual Technology (Joe Bay) supports all classrooms and provides AV support for seminars and other productions. * IT updates our computers, both in our offices and in our laboratory rooms, and troubleshoots any technical problem we face. * Administration has provided room and facilities scheduling allowing us to host events. * We collaborate with the student ambassadors' program that offers tours of our labs. |

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| **9. Prioritized Resource Requests** |
| **In the 2022-23 APU, you have provided your resource requests which went through the IPAR process.  In this section, include resource requests from last year that are still needed and/or new resources that have emerged.  Provide justifications. If there are no resources requested, leave the boxes blank.** |

|  |  |  |
| --- | --- | --- |
| **Resource Category** | **Description/Justification** | **Estimated Cost** |
| **Personnel** |  |  |
| Classified Staff | N/A |  |
| Student Worker | 30 hours SWs in laboratory class/week x 32 wks @$18.09 | $17,366 |
| Part Time Faculty | 3 part-time faculty for expansion of offerings/ degree programs  and to replace retiring full-time faculty. | $75,000 |
| **Professional Development** | | |
| Department wide PD needed | Travel to Conferences | $2,500 |
| Personal/Individual PD needed | RAPS courses+ assistance with DNA sequencer  Journal subscriptions | $10,000 |
| **Supplies** | | |
| Software (for whom or role?) | N/A |  |
| Books, Magazines, and/or Periodicals | Laboratory Manuals components for production at BCC | $2,500 |
| Instructional Supplies | Laboratory supplies: consumables | $9,000 |
| Non-Instructional Supplies | Office supplies; printing student research posters | $1,500 |
| **Technology & Equipment**  Description/Justification (*Before you list your technology request,* [*click here to view the latest Technology Refresh Plan*](https://drive.google.com/file/d/14FnMslW2ebA23iZl8NlAzk_2OjjGeOu8/view?usp=sharing) *to verify whether it has already included.)* | | |
| New | N/A |  |
| Replacement | Small equipment items, aging equipment, glassware | $10,000 |
| **Facilities** | | |
| Classrooms | Projector replacements  Student work rooms for MESA - Multi-purpose room |  |
| Offices | Office Chairs  More office capacity |  |
| Labs | New / larger capacity labs (5th floor buildout)  Projector replacements |  |
| Other | Fume hood certification; hazardous waste removal | district’s responsibility |
| **Library** | | |
| Library materials (including streamline media needs) | N/A |  |
| Library collections | N/A |  |
| OER | N/A |  |
| **Other** |  |  |
| OTHER Description | Maintenance: autoclave, pipettors, microscopes, biosafety cabinets, refrigerators, freezers, incubators | $10,000 |

**Thank you for your time and effort in completing the Annual Program Update!**

**Please email the completed Program Review to your Dean by November 30, 2023**