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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

Review your responses from the prior year’s APU and provide updates to the progress made in your department/program. After you have completed the APU, send a copy to your dean/supervisor.

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 which are completed every three years; and Annual Program Updates (APUs) which are completed in non-program review years.

[APU 2020-2021 timeline](https://drive.google.com/file/d/1zaaWWpL4v7vM0wfS3gQJ35ojpgjiweGK/view?usp=sharing) has been developed for each program and services to guide. Please review and work with your Deans, Managers, Department Chairs and/or Supervisors to complete this APU.

The APU is intended to primarily focus upon planning for the subsequent year and institutional effectiveness. The APU process directly leads to the institutional resource allocation process and budget planning for the following academic year ([2020-21 PR/APU & Resource Allocation Cycle).](https://drive.google.com/file/d/1rk1xLecdpcsyL5zjwRbx-KHVFOJ2Afe7/view?usp=sharing)  This is an opportunity for each program, student services, and department to reflect on progress made since last year based on the goals (outcomes) set, identify areas of program improvements to achieve student success and elimination of achievement gap that are identified in the [Berkeley City College Strategic Plan 2018-2020](https://drive.google.com/file/d/1BVSnFJNGByVXzFLsLzDqkO-48MkRlgn7/view?usp=sharing). In this process of making continuous quality improvement, there is an opportunity for each program, student services, and department to request additional resources that support achieving the stated goals.

**Please email the completed APU to your Deans or Managers by November 6, 2020.**

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

**COLLEGE PROFILE**

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| **Student Demographics** | **2016-2017** | **2017-2018** | **2018-2019** | **2019-2020** |
| Annual Headcount |  11,195  |  11,041  |  10,903  |  10,759  |
| Total Enrollment (census) | 34,402 |  32,850  |  30,298  |  31,007  |
| **Ethnicity** |  |  |  |  |
| African-American | 18% | 15% | 16% | 15.2% |
| American Indian/Alaskan Native | 0.2% | 0.2% | 0.2% | 0.3% |
| Asian | 24% | 22% | 22% | 21.5% |
| Filipino | 3% | 2% | 2% | 2.4% |
| Hispanic | 22% | 24% | 25% | 25.9% |
| Multi-Ethnicity | 3% | 7% | 7% | 6.9% |
| Pacific Islander | 0.4% | 0.3% | 0.3% | 0.3% |
| Unknown | 5% | 4% | 3% | 5.1% |
| White Non-Hispanic | 25% | 24% | 24% | 22.5% |
| **Gender** |  |  |  |  |
| Female | 55% | 55% | 55% | 56% |
| Male | 43% | 43% | 42% | 41% |
| Unknown | 2% | 3% | 3% | 3% |
| **Age Group** |  |  |  |  |
| 19 or Less | 28% | 27% | 29% | 30% |
| 20 to 24 | 35% | 35% | 33% | 32% |
| 25 to 29 | 16% | 16% | 16% | 15% |
| 30 to 34 | 7% | 8% | 8% | 8% |
| 35 to 39 | 4% | 4% | 4% | 4% |
| 40 to 49 | 5% | 5% | 5% | 5% |
| 50 + | 5% | 5% | 5% | 6% |
| **Full-Time/Part-Time Status** | **Fall 2017** | **Fall 2018** | **Fall 2019** | **Fall 2020** |
| Full Time | 21% | 18% | 18% | 15% |
| Part Time | 79% | 82% | 82% | 86% |

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| **College Outcomes** | **2017-2018** | **2018-2019** | **2019-2020** |
| Full Time Equivalent Students (FTES) | 4140 | 3864 | 3696 |
| Productivity (avg faculty-student ratio) | 13.4 | 13 | 13.2 |
| Success Rate (%) | 67% | 69% | 67%\* |
| Degrees + Certificates Awarded (#) | 1,021 | 948 | 1,106 |

*\*Excludes “EW” grades*

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| Name(s) of members completing this update | Department/Program  | Completion Date |
| Sam Gillette | Chemistry | 11/8/20 |

[**Click here to access your program’s APU report from 2019-20.**](https://drive.google.com/drive/folders/1xEDJm-YOy2lcP1cdnXnzg1M9AaWaV47B?usp=sharing)

You can copy, paste, and edit your responses.

1. Please verify the mission statement for your program. If your program has not created a mission statement, provide details on how your program supports and contributes to the College’s mission.

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|  The Chemistry Program mission is to:• Promote student success, increase accessibility, and improve equity; • Improve retention and outcomes in chemistry;• Provide our diverse community with educational opportunities and training in the STEM fields, such as earning an AS degree in Analytical Chemistry and Biotechnology;• Provide effective instruction, student support, tutoring and mentoring to ensure a successful transfer to 4-year college or university and build a career in the STEM fields. |

1. **List your faculty and/or staff with assignments in fall 2020.**

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| --- | --- |
| Full Time | Part Time |
| Sam Gillette (faculty & Dept co-chair)Siraj Omar (faculty)Natalia Fedorova (Lab Manager)Azul Lewis (Lab Technician) | Dalileh AlaeiDean CovaltAli DehghaniAlicia MuhnJulian ReesAnu SharmaNeeta SharmaGurnam SinghAlvaro Valle |

1. **The Program Goals below are from your most recent Program Review or APU. If none are listed, please add your most recent program goals.**

Goal-1: To provide students with the knowledge and skills that they need to be successful in college majors in the science disciplines in the next stage of their academic career, whether that stage involves transfer to a 4-year institution, entering professional programs, such as nursing, medicine, dentistry or engineering.

Goal-2: To build a foundation for students to make a careers in the STEM fields.

Goal-3: To provide the community with informative courses to enhance their understanding and appreciation of the world of science; this includes creating a monthly seminar series by invited speakers in various STEM disciplines.

**What is the status of the goals, and which College and District goals your program goals align to? How did you measure the achievement of these goals?**

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| 1. College Goal:Increase Transfer and Transfer Degrees: Ensure that all of BCC’s programs of study and transfer pathways for degrees prepare students, in a timely manner, for multiple transfer options.District Goal:Advance Student Access, Equity, and Success Goal in progress. Will neeed access to transfer data to 4-yr and professional school data to measure.2. College Goal:Enhance Career-Technical Education Certificates and Degrees: Enhance BCC’s 1- and 2-year career and technical education programs so that they provide current and transferable skills and competencies to earn a living wage in our area, and to maintain competency for advancement in one’s career.District Goal:Build Programs of DistinctionGoal in progress. Will need career / Job data to measure.3. College Goal:Ensure Institutional Sustainability: Increase BCC’s impact in education through innovation, internal and external collaboration and partnerships, and sufficient resources, both short-term and long-term.District Goal:Strengthen Accountability, Innovation and CollaborationGoal in progress. We have had daytime seminars for STEM related career and topics. We have had evening seminars in the past (two Nobel Laureates amongs others!). we should continue these seminars and seek feedback from the community. |

1. Describe your current utilization of facilities, including labs and other space.

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| Office spaces: Rooms 511 and 523 are shared by full-time faculty, some part-time faculty and classified staff (lab manager and lab technicians. More office space needed to accommodate part-time faculty.Lab spaces: Room 514 and 521 are available lab spaces for the Chemistry Program – room 514 is dedicated for use by organic chemistry and analytical chemistry classes, while room 521 is shared by Chem 30A, Chem 1A, and Chem 1B. In addition, the department also has a small room (room 515) to house all the analytical equipment for biology and chemistry and a storage room for the Science Department supplies and surplus.Additional space needed: The current available space (lab and office) does not allow for the expansion of the chemistry program. Future expansion of the chemistry program will require the following additional space:• one new general chemistry laboratory; • one dedicated room for tutoring and study session, and • Sufficient office space for part-time faculty to work, prepare for class or hold office hours.  |

1. Using the data dashboards, review and reflect upon the outcome trends for your department/program. Describe any significant changes (successes and/or challenges) and discuss what the changes mean to your program and what can be done to address them. Consider whether performance gaps exist for disproportional impacted students (see [BCC’s Student Equity Plan](https://www.berkeleycitycollege.edu/wp/prm/files/2020/09/Student-Equity-Plan-2019-2020.pdf)). [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).

Review [BCC’s Student Equity Plan](https://www.berkeleycitycollege.edu/wp/prm/files/2020/09/Student-Equity-Plan-2019-2020.pdf) and focus upon the most recent year and/or the years since your last comprehensive program review. Cite data points from the dashboard and other related Plans and goals to support your answer.

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| **Data Dashboards and Planning Documents** |
| 2020-21 Dashboards for APUs1. [Course Completion and Retention Rates Dashboard – Instruction](https://app.powerbi.com/view?r=eyJrIjoiNjc2MDhiNTEtNTJhZi00MDM0LTk5NDItNTRiY2EzMGI1NTZiIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)2. [Course Completion and Retention Rates Dashboard – Student Services](https://app.powerbi.com/view?r=eyJrIjoiNjk3NDJjOTItNzI5MS00MDhjLWJhN2EtZjcxNzU4OTBiZDBjIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)3. [Enrollment Trend and Productivity Dashboard](https://app.powerbi.com/view?r=eyJrIjoiNWJlOWZmYTEtNTY0MC00MDhkLWE5OTAtYmJjZjIxNzJiNWViIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSection86d6f65e2fb41a73da4d)4. [Degrees and Certificates Dashboard](https://app.powerbi.com/view?r=eyJrIjoiZjU2M2M5MzItOTcwZi00Y2U1LWJmODUtYTc0YjlhZGI2ZDhjIiwidCI6ImVlYTE2YTE2LTQ4YWYtNDc3Yi05MTEzLTA1YjFjMDExMjNmZiIsImMiOjZ9&pageName=ReportSectionde32556e136b0a8caccd)[**Planning Documents**](https://www.berkeleycitycollege.edu/wp/prm/bcc-plans/)(Education Master Plan,College Strategic Goals, Student Equity Plan, District Strategic Goals, Vision for Success, Guided Pathways, Technology Plan, Facilities Plan)*\*For assistance with data dashboards, contact Phoumy Sayavong at psayavong@peralta.edu* |
| General note: While overall trends are quite usefull, the ability to drill down into subgroups while disagrgregating is limited due to very low sample sizes in some cases.Gender: While there are a greater number of women in chemistry courses than men (175 vs 117), the completion rates for women are lower (72.6% vs 75.2%). Looking at trends over the past three years shows that the gap in completion rates may be beginning to close. The fall 2017 gender completion gap was 5.7%; fall 2018 was 5.7%; and fall 2019 was 2.6%. This clearly is something to watch in coming years. Retention rate variance by gender tells a slightly different story: The gap in fall 2017 was 9.3% favoring men; in fall 2018 that fell to 3.3% favoring men; and reversed to 0.8% favoring women in fall 2019. The largest improvements in the gender gap are in the fall 2019 term. It will be important to follow this closely. These trends are similar across age and ethnicity with the one excption of an inversion in completion and success rates for Black Men vs Black women: Black Women score slightly above average while Black Men score below their gender averages in both completion and retention. These gender gaps seem to neither be repreresented in college-wide analysis nor across STEM classes where completion and retention rates are both skewed toward men.Age groups: The majority (55%) of students in chemistry courses fall in the 19-24 age bracket. The youngest group (16-18) and the older groups (30-54) have slightly higher success and retention rates than the majority group.Ethnicity: Asians represent the largest group of chemistry students (aproximately 1/3) and have the highest retention and completion rates (87,9% and 83.2%). Latinx rates are considerably lower (72.1% and 60.7%). Black and White student have similar retantion rates (83.8% and 82.0% respectively), but the Success rates for Black students falls off relative to their White classmates (73.0% compared to 78.7%). Comparing the last three years (2017-2018, 2018-2019, and 2019-2020), fall semester success rates for Black students have shown a marked improvement: 32.0%, 51.4%, 58.8%, and 73.0%. Latinx student success rates have not shown the same level of improvement over the same time period as their Black classmates: 58.8%, 57.1%, 68.3%, and 60.7%. |

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| **ASSESSMENT** |
| Berkeley City College is committed to a culture of assessment to improve instruction, services, and institutional planning.  Findings from SLO and PLO 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 2018-2020.  *Due to the critical role that course and program assessments play in our institutional planning and to be in compliance with the Accreditation requirements, the APU resource allocation requests require the completion of assessment in order to qualify.* |

1. Describe the department/program’s progress on Student Learning Outcomes (SLOs), Program Learning Outcomes (PLOs), and/or Service Area Outcomes (SAOs) since the last Program Review/APU. If your department/program offers a degree or certificate, please describe the department’s progress on Program Learning Outcomes (PLOs).

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| The Fall 2020 semester is used to assess all outstanding courses\* with a due date of January 4th 2021. In the Spring of 2021 all the programs will be assessed. The following courses in Chemistry are assessed CHEM-1A, 1B, `12A, and 12B. The following courses are to be assessed this semester: CHEM-30A and 30B. \*CHEM18 will be assessed in Spring 2021 as it is not offered in fall semesters.  |

Have your assessment results been recorded in CurricuNet Meta? [x]  Yes [ ]  No

If no, what was the reasons for not having been able to assess?

[ ]  Courses were planned to be offered but cancelled

[ ]  COVID–19 disruption (in person to OL conversion)

[ ]  Other:

When do you plan to assess these courses that you did not complete this semester? Indicate the plan in the department assessment calendar. Work with your assessment liaison, if you need assistance**.** [Click here to view your Assessment Calendar](https://peralta4-my.sharepoint.com/personal/ncayton_peralta_edu/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fncayton%5Fperalta%5Fedu%2FDocuments%2FAssessment%20Info%20for%20APU&originalPath=aHR0cHM6Ly9wZXJhbHRhNC1teS5zaGFyZXBvaW50LmNvbS86ZjovZy9wZXJzb25hbC9uY2F5dG9uX3BlcmFsdGFfZWR1L0VrUF9iTld5cFJCSnYwNzhMM1pjcFk0Qk52MzBzZXRjQ2RpZFFwR3FWMUNCV2c_cnRpbWU9RGktQjZ4cGYyRWc)

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| See above |

1. Describe the impact and accomplishments from previous year’s funded resource allocation request. If not funded, leave blank.

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| --- | --- | --- | --- |
| Brief description of funded request | Funding Source (any additional award outside your base allocation) | Total Award Amount | Outcome/Accomplishment |
|       |       |       |       |
|       |       |       |       |
|       |       |       |       |

1. In the boxes below, add improvement actions and resource requests that are directly related to questions 1 thru 7. If there are no improvement actions or resource requested in this area, leave blank. *If you have more than one Improvement Plan, add more by copying and pasting the table below.*

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| **IMPROVEMENT ACTIONS** |
| Action Name: | Improve latinx student outcomes in STEM courses |
| Description: |  Provide embedded tutors for for chemistry classes. This could be one of the first steps in creating a MESA program that would include counceling and peer advisors for transfer for first-generation college students, and students from underrepresented groups  |
| To be completed by [Date]:  |  |
| Responsible person: |       |

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| **IMPROVEMENT ACTIONS** |
| Action Name: | Boot camps |
| Description: | Continue bootcamps for Chem1A and B to ensure students gain basic skills needed to succed in college level science courses. Chem1A is the first science course for many science majors and can be challenging. Boot camp not only provides skill building, but peer group building and early access to faculty. We need to include lab skill b oot camps for the Chem12 series to support students that did not gain hands-on lab skills during COVID. Students that have not benefitted from in-person lab activities will require additional training to have a safe and productive lab curriculum. |
| To be completed by [Date]:  |       |
| Responsible person: |       |

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| **Prioritized Resource Requests** |
| In the boxes below, add resource requests for your department/program that *have not been funded by existing sources*. Provide justifications from your request based on evidence from your responses in questions 1 through 8 above. If there are no resource requested, leave the boxes blank. You will be required to present your request(s) to the Resource Allocation Committee in order to qualify for funding. Work with your administrator/supervisor to estimate costs. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Resource Category | Description/Justification | Estimated Annual Salary Costs | Estimated Annual Benefits Costs | TotalEstimatedCost | OverallPriority Ranking (1=Most important) |
| **Personnel** |  |  |  |  |  |
| Classified Staff | BCC offers 18-20 units of chemistry LAB courses per semester. Compare this to 15 at Laney, 10 at Merritt, and 7 at COA. To successfully and safely offer this number of lab courses we require a lab tech keep thr labs stocked, inventoried, and preped. We are the only college without a permanent full-time chemistry tech. Currently Azul Lewis fills this roll but this position needs to be given priority as a permenant position. (This position is currently funded by the Strong Work Force Fund, which has enabled the department to hire a full-time laboratory technician for chemistry. The department is requesting the college to be funded this position through the college general fund, so that the SWF fund that is allocated for this position could be used to support the CE program that provides internship and job training to our students.)  |       |       |       | 2 |
| Student Worker | Student Workers/Tutors are needed to provide tutorial services and assist instructors during laboratory classes. They serve as embedded tutors to help students who came under-prepared, especially those from underrepresented groups. Tutors help them with their academic success and to narrow the achievement gap. Student workers are also needed with chemical preparation and lab clean-up. Break down of lab-hours where student workers are needed are as follows: 1) Lab TA's for spring and fall semester: 33 lab-hrs/wk x 32 wks = 1056 hrs 2) Summer Lab TA's: 24 lab-hrs/wk x 6 wks = 144 hrs 3) Tutors (Fall and Spring): 5 hrs/wk x 32 = 160 hrs 4) Tutors (Summer): 4 hrs/wk x 6 wks = 24 hrs Total # of student worker hrs = 1384 hrs Estimated cost: 1384 hrs x 15.50 = $21,452Sub-Total: $203452 |       |       |       | 3 |
| Part Time Faculty |       |       |       |       |       |
| Full Time Faculty  | The chemistry program at BCC offers the equivalent of 7 FTEF courses in chemistry, but has only 2 full-time faculty. About 71% of the courses offered are currently taught by adjunct faculty. Another full-time faculty would reduce the department's dependence on adjunct faculty. In addition, an additional full-time faculty will enable the department to develop more CE programs in analytical chemistry and makes our chemistry graduates more marketable in the job market.  |       |       |       | 1 |
| Professional Development | Description/Justification |  |  | Estimated Cost |  |
| Department wide PD needed |  |       |       |
| Personal/Individual PD needed |       |       |       |
| **Supplies** | Description/Justification | Estimated Cost |  |
| Software |       |       |       |
| Books, Magazines, and/or Periodicals |       |       |       |
| Instructional Supplies |       |       |       |
| Non-Instructional Supplies |       |       |       |
| **Technology & Equipment** | Description/Justification | Estimated Cost |  |
| New | ipads and stylus for online teaching. Chemistry instruction relies heavily on stucture drawing and solving mathmatical problems. In-person classes utilize whitebords for these activities. iPads and stylus allow a seemless way to integrate these lessons into zoom meetings and teaching content. |       |       |
| Replacement | maintanance contracts for analytical instruments: HPLC, GC-MS, GC |       |       |
| **Facilities** | Description/Justification | Estimated Cost |  |
| Classrooms |       |       |       |
| Offices |       |       |       |
| Labs | Additional chemistry labs are scheduled to be part opf the 2050 Center remodel after the new building comes on line  |       |       |
| Other |       |       |       |
| **Library** | Description/Justification | Estimated Cost |  |
| Library materials |       |       |       |
| Library collections |       |       |       |
| **Other** | Description/Justification | Estimated Cost |  |
| OTHER Description |       |       |       |

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