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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**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 |
| Pieter de Haan | Biology | 11/6/2020 |

[**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 most important goal of the science department, in which Astronomy, Biotechnology, Biology, Chemistry, Geology, Geography, Physics, and Physical Sciences are the disciplines, 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 stepping stones to science in order 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. |

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

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| Full Time | Part Time |
| Barbara Des Rochers Ph.D. (Biotech)  Pieter de Haan Ph.D. (Biol)  Randy Yang Ph.D. (Biol) | Doug Schmidt Ph.D. (Biol)  Linda McPheron Ph.D. (Biol)  Julia Chang Ph.D. (Biol)  Lili Banihashemi MS. (Biol)  Scott Blitch MS. (Biol)  Jacob Bertrand Ph.D. (Biol)  Erika Yeh Ph.D. (Biotech) |

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.**
2. The goal of the Biotechnology Program 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 entering the workplace in a research or industrial laboratory, transferring to a 4-year institution to complete an undergraduate degree, or entering a professional program of study such as nursing or medicine. The programs and courses are designed to include both academic and laboratory training and emphasize development of competence and confidence. There are two Certificates of Achievement (CA) and an A.S. degree in Biotechnology and they are stackable: The first CA prepares students for entry level biotechnology laboratory assistant positions in industry and academic laboratories, the second CA is designed for students who have completed the first certificate and want to progress in their education and training so that they can either enter the workforce directly or transfer to a 4 year institution. The second CA also has been designed for professionals in the industry and research laboratories, who desire more up to date laboratory training. The A.S. degree in Biotechnology prepares students for employment as technicians and research associates in the pharmaceutical and biotechnology industries, state and federal laboratories, and a range of clinical and academic laboratories. BIOL-AST: The Associate in Science in Biology for Transfer Degree is designed to prepare students to complete the baccalaureate degree in Biology upon transferring into the CSU system. This program assists in seamlessly transferring to a CSU in order to earn a bachelor’s degree in Biology. The courses in the BIOL-AST degree program are also articulated to allow students to transfer to local U.C.’s. All classes in this program are currently being offered at BCC.

**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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| GOAL I. Strengthen Resilience: Strengthen BCC students’ abilities to become self-directed, focused and engaged in the pursuit of transformative, life-long learning experiences that result in personal and academic success.  "Closing Equity Gaps in Introductory Biology through Faculty Professional Development in Active Learning Practices" is the title of our Grant from the State of California: Faculty Learning Opportunities for Student Success (FLOSS) is a multi-institution initiative to support faculty instruction and student learning in introductory biology courses. Faculty and instructional staff representing University of California, Berkeley (UCB); California State University, East Bay (CSUEB); and Berkeley City College (BCC) will develop a Community of Practice (CoP) to boost student achievement and to narrow observed equity gaps via faculty professional development in active, student-centered teaching practices.  The grant started this Fall and will be open for workshops in Spring 2021.  GOAL II. Raise College Competence: Raise student skills and competencies, and expand their learning experiences, so that they can successfully complete their college program.  The A.S. degree in Biotechnology prepares students for employment as technicians and research associates in the pharmaceutical and biotechnology industries, state and federal laboratories, and a range of clinical and academic laboratories. This degree recently was upgraded to allow students to incorporate transfer level science coursework while they are completing the A.S. degree. For students transferring to 4 year schools with active research programs, an A.S. degree in biotechnology enhances their prospects of securing employment in a laboratory as they complete their degree.  GOAL III. 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.  The goal of the Biotechnology Program 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 entering the workplace in a research or industrial laboratory, transferring to a 4-year institution to complete an undergraduate degree, or entering a professional program of study such as nursing or medicine. The programs and courses are designed to include both academic and laboratory training and emphasize development of competence and confidence. There are two Certificates of Achievement (CA) and an A.S. degree in Biotechnology and they are stackable: The first is designed for students who are just starting their careers in a STEM related field and who have yet to complete formal coursework in biology and chemistry. Completion of this certificate allows students to apply for entry level laboratory assistant positions. The second CA certificate is designed to build on the first certificate and give the student more in-depth laboratory experience while allowing them to complete coursework toward a 4 year STEM degree. Completion of this certificate prepares students for a broader range of assistant positions in industry and academic laboratories. The second CA also has been designed for professionals in the industry and research laboratories who desire more up to date laboratory training. Future goals for the Biotechnology program are to develop one or two non-credit certificates that parallel the second CA certificate which will allow laboratory technicians currently employed in the industry to upgrade their skill set at no cost.  Goal IV: 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.    In our department we are working on more AS-T degrees (Physics is in the works right now) We do have a Bio-AST degree.  GOAL V. 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.  See reply to the first Goal. |

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

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| We are using all Lab spaces in our building. Lectures are held in different lecture rooms. The tiered classroom 431 is always used for double sections. We need more of these tiered classrooms! Lunch seminars are also held at the tiered classroom. Evening seminars utilize the auditorium. |

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 APUs  1. [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* |
| In Biology we see an increase in Course Completion by 3.3% and Retention by 5.3% from 2018-2019 to 2019-2020 (Including MW and EW grades). Compared with the overall scores for the college, Biology scored 14.9% higher in course completion (80.8%) and 3.2% lower in retention rate (91.2%) if we compare last academic year (2019-2020).  Gender distribution in Biology is as follows: there were 604 Females, 362 Males, and 24 Unknowns during the Census enrollment. 80.8% was the course completion rate of females and 90.2% was the retention rate. 81.4% was the course completion rate of males and 93.4% was the retention rate. 70.8% was the course completion rate of the unknowns and 83.3% was the retention rate.  Compared with Berkeley City College gender rates with Biology, the Biology discipline females scored 10.8% higher in Course Completion Rate and 2.4% higher in the Course Retention Rate. Males scored 15.5% higher in Course Completion Rate and 5.7% higher in the Course Retention Rate. Unknowns scored 3.3% higher in Course Completion and 2.6% lower in the Course Retention.  Most student between 19-24 are enrolled in Biology classes.  Looking at ethnicity in the Biology discipline we see 29.6% Asians, 23.6% Hispanic/Latino, 19.0% White/Caucasian, 13.9% Black/African American, 7.6% Two or More, 2.4% Unknown, 0% Pacific Islander, and 0% American Indian.  This year the course completion rate for Asians increased from 81% to 86.3%, for Hispanic/Latino group it decreased from 72% to 70.5%, for the White/Caucasian group it increased from 88% to 89.1%, for the Black/African American group it increased from 54% to 71%, the Two or More group increased from 75% to 82.4%, the Unknown/ NR group increased from 89% to 90.3%.  It is clear from the data, that there is an equity gap between the Course Retention and Course completion of the Black / African American, Hispanic / Latino populations and the Asian and White populations. To Address this equity gap, Pieter de Haan at the Biology department is in contact with faculty at UCB and CSEB. We applied and received a grant to solve this problem. The Title of the grant is: "Closing Equity Gaps in Introductory Biology through Faculty Professional Development in Active Learning Practices". A short synopsis of the grant is: "Faculty Learning Opportunities for Student Success (FLOSS) is a multi-institution initiative to support faculty instruction and student learning in introductory biology courses. Faculty and instructional staff representing University of California, Berkeley (UCB); California State University, East Bay (CSUEB); and Berkeley City College (BCC) will develop a Community of Practice (CoP) to boost student achievement and to narrow observed equity gaps via faculty professional development in active, student-centered teaching practices.  The CoP proposed here will meet three goals: 1) to foster, in faculty participants, a deeper understanding of the academic and social barriers to learning in their students; 2) to provide faculty participants with critical pedagogical theory (how students learn) and with practices to promote deeper learning and greater engagement in diverse student learners; and 3) to improve the classroom experience and increase student achievement while reducing existing equity gaps. FLOSS participants will engage in eight interconnected sessions over one year to use, refine, and share practices and strategies in a collaborative environment. Expert guest speakers will model dynamic, hands-on activities and interactive discussions of learning theory. Participants will implement evidence-based, high-impact practices, geared toward stimulating engagement and promoting problem-solving skills and critical thinking in their students.  Proposed outcomes for faculty participants include enhancements in pedagogical knowledge, instructor confidence, and student achievement, persistence, and retention in introductory biology courses. Beyond this, the proposed project will extend new knowledge and insights to a wider group of UCB, CSUEB, and BCC STEM faculty and staff. Evaluation of program success will involve focus groups and surveys to understand the student experience in student-centered teaching environments; grade assessments of students in target courses will identify whether student achievement has increased and equity gaps have diminished. Ultimately, the project goal through the planned program of faculty professional development is the translation of improved teaching strategy and confidence in pedagogical practices to measurable improvements in student success."  The purpose of this grant is to try this out with the Major Biology courses: BIOL-1A and BIOL-1B. If we are successful in breaking this equity gap, than this method will be used in all of the sciences and probably it will eventually lead to Flex-day workshops to address the methods we developed. |

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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 Biology are assessed Biology-1A, 1B, 10, 13, and 25. The following courses are assessed this semester: BIOL-3, 32 33, 34, 34L and 50A. 46% is assessed. |

Have your assessment results been recorded in CurricuNet Meta? ☒ 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 what I wrote in 7. |

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 |
| Compound Microscopes |  | 10000 | Yes |
| Dissecting Microscopes |  | 7500 | Yes |
| Student workers |  | 5000 | partly When back in the classroom we need more student workers |

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.*

|  |  |
| --- | --- |
| **IMPROVEMENT ACTIONS** | |
| Action Name: | Student workers |
| Description: | Help in the labs |
| To be completed by [Date]: | August 2021 |
| Responsible person: | Natalia Fedorova and Pieter de Haan |

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| **IMPROVEMENT ACTIONS** | |
| Action Name: | Biotechnician |
| Description: | Help in preparing the Biotechnology labs |
| To be completed by [Date]: | August 2021 |
| Responsible person: | Pieter de Haan |

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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 | Total  Estimated  Cost | Overall  Priority Ranking (1=Most important) |
| **Personnel** |  |  |  |  |  |
| Classified Staff | Glass washer  Biotechnician | 7630  70630 | 500hrs X 15.25 | 78260 | 1 |
| Student Worker | Help in the labs for Biology | 40000 |  | 40000 | 1 |
| Part Time Faculty |  |  |  |  |  |
| Full Time Faculty | Release time for the person that oversees the Biotechnology Program: The Biotechnology Program be considered a separate entity within the sciences, one that requires someone to serve as a Director. The director should be faculty with adequate release time and a much reduced teaching load. This what the original search committee was demanding when Dr. Des Rochers was hired and while the release time came no where near what it should have been, it nonetheless existed - and it presently needs to be restored. |  |  |  | 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 | LTI Labster | | | ? |  |
| Non-Instructional Supplies |  | | |  |  |
| **Technology & Equipment** | Description/Justification | | | Estimated Cost |  |
| New |  | | |  |  |
| Replacement | MAINTENANCE CONTRACTS: autoclave, microscopes, pipetman.  Desktop computer should be replaced with a laptop. Desktop obscures the whiteboard This is in lab 513 | | | 15000  1500 | 2 |
| **Facilities** | Description/Justification | | | Estimated Cost |  |
| Classrooms |  | | |  |  |
| Offices | Science is in need of more office space for the adjunct faculty. | | |  | 3 |
| Labs | More Labs are needed for Biology, Biotechnology. | | |  | 4 |
| Other | Study space is needed for students where they can access scientific publications and where tutor session can be held. We envision a Science Learning Center. | | |  | 5 |
| **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!