

<u>m</u> Dept - (BHES) Biology → Department → Program Review

Department Chairs/Program Leads: Please press the edit symbol in the right-hand corner to update. Below, the text in bold corresponds both to the name of the box when editing this page and also to the first-column on the APRU worksheet. If you have questions, please contact: papemary@fhda.edu.

🔻 🧰 Dept - (BHES) Biology

2018-19 Annual Program Review Update Submitted By: Jason Bram

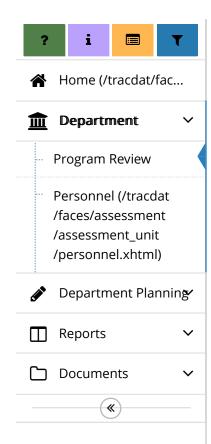
APRU Complete for: 2018-19

Program Mission Statement: To transfer students majoring in Biology to a 4 year college to complete their 4 year degree in Biology, to provide prerequisite preparation for nursing and allied health students, and to provide general education lab science courses for students majoring in other disciplines at De Anza College.

- I.A.1 What is the Primary Focus of Your Program?: Transfer
- I.A.2 Choose a Secondary Focus of Your Program?:

Career/Technical

- I.B.1 Number Certificates of Achievment Awarded:
- I.B.2 Number Certif of Achievment-Advanced Awarded:
- I.B.3 #ADTs (Associate Degrees for Transfer) Awarded:
- I.B.4 # AA and/or AS Degrees Awarded: 27
- **I.B.5 Strategies to Increase Awards :** I have no idea what to put here.
- I.C.1. CTE Programs: Review of Perkins Core Indicator and SWP Outcomes Metrics: N/A
- I.C.2 CTE Programs: Labor Market Demand and Industry Trends :: N/A
- I.D.1 Academic Services & Learning Resources: #Faculty served:
- I.D.2 Academic Services & Learning Resources: #Students served:
- I.D.3 Academic Services & Learning Resources: #Staff Served:
- I.E.1 Full time faculty (FTEF): 19.3



I.E.2 #Student Employees:

I.E.3 Ratio % of Full -time Faculty Compared to % Part-time Faculty Teaching: Full-time faculty teaching went from 48.8% to 46.5% . Part-time faculty teaching went from 44.9% to 45.3%.

I.E.4 # Staff Employees:

I.E.4 #Staff Employees: 0

I.E.5 Changes in Employees/Resources: Part-time % has shown no change over the last 5 years and full-time % has decreased 6% over the last 5 years which has impacted our enrollment. On the bright side, last year showed the first increase in enrollment since the 2014-2015 academic year, albeit a small one. With the possible addition of new full-time faculty members in high demand courses in the future, we hope to see a continued increase in enrollment.

II.A Enrollment Trends: The Biology department continues to see long wait lists and student demand in the prerequisite Bio 40 series and the Biology majors 6 series courses. Over the last 3 years, enrollment has stayed relatively consistent. A way to increase enrollment would be to offer more sections of Biology 40 and Biology 6 series courses.

II.B Overall Success Rate: The overall success rate has improved over the last 3 years by 5% and showed an increase in each of those years. The success rate is now at 80%.

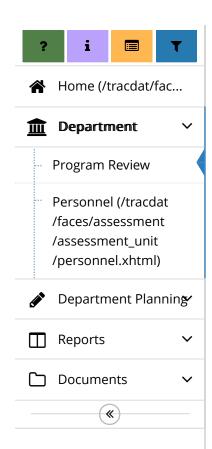
II.C Changes Imposed by Internal/External Regulations: None at this time

III.A.1 Growth and Decline of Targeted Student Populations:

2017-18 Enrollment: The percentage of targeted student populations in relation to the total number of students served by our department remained the same for African American students and Filipinx students. Latinx students showed a 2% decrease while Pacific Islander students showed a 1% decrease since last year.

III.A.2 Targeted Student Populations: Growth and Decline: The percentage of African American students, Pacific Islander students and Filipinx students in relation to the total number of students served by our department has remained consistent over the last 5 years. Latinx students have shown a 3% increase in enrollment in relation to the total number of students served by our department over the last 5 years.

III.B.1 Closing the Student Equity Gap: Success Rates: We have reached out to more students via outreach, we are providing more



hands on laboratory experiences, the science resource center has been provided with resources for students to practice and perfect their skills. In addition, tutoring for Spanish speaking students in Biology continues to be very successful.

III.B.2 Closing the Student Equity Gap: Withdrawal Rates:

African American withdraw rate: 12%. Latinx withdraw rate: 11% Filipinx withdraw rate: 9% Pacific Islander withdraw rate: 17% Asian withdraw rate: 9%

III.B.3 Closing the Student Equity Gap: 2017-18 Gap:

2013-2014: 12% gap; 2014-2015: 13% gap; 2015-2016: 13% gap;

2016-2017: 8% gap; 2017-2018: 7% gap

III.C Action Plan for Targeted Group(s): N/A

III.D Departmental Equity Planning and Progress: To reach out to our strong enrollment growth in the Latinx student population we continue to tutor in Spanish in both Biology and Chemistry. We also continue to utilize technology in our classrooms, website locations for course information, email access and office hour availability for students to interact and ask questions as needed.

III.E Assistance Needed to close Equity Gap: No

III.F Integrated Plan goals: current student equity data and action plan:

IV.A Cycle 2 PLOAC Summary (since June 30, 2014): 100% of PLO statements assessed to date.

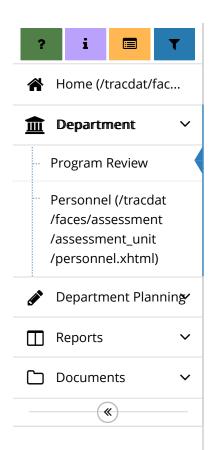
IV.B Cycle 2 SLOAC Summary (since June 30, 2014): 100% of SLO Statements Assessed.

V.A Budget Trends: Biology budget continues to see a successive decrease in funding. In order to increase enrollment, we do need to have an increase to our B budget funding.

V.B Funding Impact on Enrollment Trends: Nearly all Biology classes involve labs and hands on learning experience for students. It is extremely important that we be able to provide all our students, but especially our targeted students, with sufficient resources to maximize student success. We cannot do this without increased funding.

V.C.1 Faculty Position(s) Needed: Replace due to vacancy

V.C.2 Justification for Faculty Position(s): Our FT to PT faculty ratio remains low and to provide students with the optimum opportunity to succeed they do require FT faculty who can commit to needed department work outside of just teaching. If we do lose a position due to retirement etc., it is very essential that we be able



to replace this position. We are experiencing a high demand for Biology 6 and Biology 40 sections per student e-mails.

V.D.1 Staff Position(s) Needed: Growth position

V.D.2 Justification for Staff Position(s):: Laboratory technicians (2) to support our growing enrollment and course offerings and for evening/weekend courses.

Staff position for Science Resource Center to allow the center to be open evenings and weekends.

V.E.1 Equipment Requests: Over \$1,000

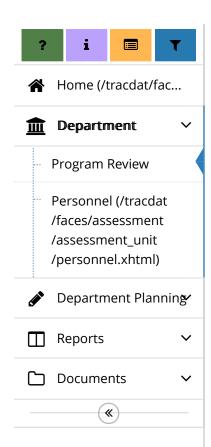
V.E.2 Equipment Title, Description, and Quantity: Autoclaves, centrifuges, media dispenser, EKG machine, Thermocycler/PCR machine, Chest freezers, Ophthalmoscopes; Refrigerators, Incubators, Microscopes (compound and dissecting), Beakers, Flasks, Graduated cylinders, Petri dishes, Gel electrophoresis chambers, On-going lab supplies, Desk chairs, Laboratory glassware washers, heating blocks, Biology & Anatomy models, Power supplies, physiology testing kits, Ecology testing kits, Chromosome simulation set, prepared slides, test tubes, gloves, slides and coverslips, hot plates, biology posters, aprons, safety goggles, pipetters, pipettes, Bacticinerators, electronic balances, dissecting equipment (trays, needles, probes, scissors, scalpels, etc.), stopwatches, microscope servicing

V.E.3 Equipment Justification: This equipment will be used by faculty, students and lab technicians. The equipment will allow students to have greater opportunity at hands on experience leading to increased student success and retention. This new equipment will last for more than 10 years and will help us attain the goal of decreasing the equity gap and increasing student success and retention.

V.F.1 Facility Request: A second biohazard laboratory with new furniture, lighting and smart room set up. Additional dedicated classroom for course offerings given our enrollment growth.

V.F.2 Facility Justification: We have a continued increased demand for the Bio 6 series as part of our transfer pathway, Bio 26 as part of the Allied Health/Nursing prerequisites, and the Bio 40 series. Our inability to offer more sections due to lack of facilities has us unable to meet student demand.

V.G Equity Planning and Support: Our equity planning will allow us to provide students with greater opportunity at hands on experience through laboratory activities and to review course material outside the traditional classroom environment in the resource center and tutoring sessions leading to increased student



success and retention and will enable us to decrease the equity gap while continuing to increase our enrollment in the targeted student populations.

V.H.1 Other Needed Resources: Additional tutors to work with students

V.H.2 Other Needed Resources Justification: Our equity planning will allow us to provide students with greater opportunity at hands on experience through laboratory activities and to review course material outside the traditional classroom environment in the resource center and tutoring sessions leading to increased student success and retention and will enable us to decrease the equity gap while continuing to increase our enrollment in the targeted student populations.

V.J. "B" Budget Augmentation: \$60,000.00. Students and faculty will be supported by the budget. Without the funds, student access to Biology classes would be seriously impacted. The increase in budget will help us attain the goal of decreasing the equity gap and increasing student success.

V.K.1 Staff Development Needs: None at this time

V.K.2 Staff Development Needs Justification:

V.L Closing the Loop: We will continue to aggressively pursue our goal to decrease the equity gap and increase student success as indicated in the College Mission Statement

Last Updated: 03/20/2018

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