

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

ACADEMIC SENATE

ACADEMIC PROGRAMS COMMITTEE

REPORT TO

THE ACADEMIC SENATE

AP-003-189

BS, Physics and Astronomy 2015-2016 Program Review

Academic Programs Committee

Date: 04/10/2019

Executive Committee
Received and Forwarded

Date: 04/17/2019

Academic Senate

Date: 04/24/2019
First Reading

BACKGROUND:

As part of the university's five-year planning cycle for all programs, a self-study was prepared by the Department of Physics and Astronomy in 2015-16. Dr. Stephan Haas from USC and Dr. Chuhee Kwon from CSU Long Beach, visited the Department on May 18-19, 2017 as external reviewers, and submitted a report. Both the Department (12/5/17) and Dean (4/17/18) prepared written responses. The Academic Programs Committee has reviewed these documents and consulted with Dean Baski, Dr. Shah-Fairbank, and Department Chair Mireles.

RESOURCES RECOMMENDED:

Dr. Seema Shah-Fairbank, Faculty Director of Assessment and Program Review
Dr. Hector Mireles, Chair, Physics and Astronomy
BS, Physics and Astronomy Program Review Self-Study
BS, Physics and Astronomy Program Review External Review Report
BS, Physics and Astronomy Program Review Dean's Response
BS, Physics and Astronomy Program Review Department's Response

RESOURCES CONSULTED:

Dr. Alison Baski, Dean, College of Science
Dr. Seema Shah-Fairbank, Faculty Director of Assessment and Program Review
Dr. Hector Mireles, Chair, Department of Physics and Astronomy
BS, Physics and Astronomy Program Review Self-Study
BS, Physics and Astronomy Program Review External Review Report
BS, Physics and Astronomy Program Review Dean's Response
BS, Physics and Astronomy Program Review Department's Response

DISCUSSION and RECOMMENDATION:

The external reviewers commended the Department (1) on increasing the number and diversity of majors in recent years; (2) on having faculty that are passionate about and engaged in student success, and that are research active and highly visible in the scientific community; and (3) for a good working relationship amongst its constituents.

The external reviewers endorsed the Department's suggestions for action: (1) the need for more space and the development of specific requests to be discussed with the Administration. The College has worked on allocation of space to more effectively use the limited resources; (2) the development of a long-term tenure track hiring plan to stem the student-faculty ratio and attract new faculty. The Dean notes that the latter has been highlighted in the College's budget submission as part of the University's multi-year budget submission, and that the Provost's Office continues to support research reassign time via the Teacher-Scholar program; (3) the Department's plan for improving and sustaining the quality of undergraduate education. This plan continues to be implemented via the establishment of consistent and uniform effective learning

experiences for students, and increasing the portion of FTES taught by tenure track faculty. Further, a large-lecture funding incentive is now in place that rewards efficient use of resources; and (4) the Department's plan to improve the involvement of alumni.

The external reviewers also added (1) that while the Department's constituents express a generally high level of job satisfaction, one should consider expanding the level of engagement by lecturers, tangibly rewarding faculty for success in teaching and research, and engage staff in decision making processes, when appropriate; (2) the need for strategic long-term planning, including faculty hiring and cross-department initiatives. The Department has addressed these issues recently at an extended meeting; and (3) the need to strengthen metrics to measure program and student outcomes. In response, the Department has established an assessment committee.

Overall, the review is very positive, indicating that the Department has a strong commitment to the quality of students' education and the research activity of its faculty.

The Academic Programs Committee commends the Department of Physics and Astronomy and the Dean's Office on a high-quality program, and the thoughtful review of ways to improve teaching effectiveness and scholarly activity.