

El Camino Community College

PROGRAM REVIEW 2017

**DIVISION OF NATURAL SCIENCES
ASTRONOMY PROGRAM**

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Winter and Summer. Our challenge is to achieve these rates in Fall and Spring.

There is no significant difference between the lecture courses (Astro 20 and Astro 25). Rates are higher in the lab courses (Astro 12 and Astro 13). Since these courses account for only a small fraction of the students taking astronomy, they have little effect on overall results.

We think we can do better than we have in the past. Therefore, we are setting as our overall goal:

Success 66%
Retention 80%

Success rates by demographic group:

Success rates vary considerable from term to term. The following averages over the period Spring 2013 to Spring 2016 (not including Winter or Summer sessions) are typical:

| | |
|------------------|-------------------------|
| African-American | 43% |
| Native American | insufficient statistics |
| Asian | 72% |
| Latino | 56% |
| Pacific Islander | insufficient statistics |
| Two or more | 65% |
| White | 73% |

The sobering 30% difference between Asians and Whites on the one hand, and African-Americans on the other, is alarming. It looks as though African-Americans and, to a lesser extent, Latinos, in general (and there are many exceptions), are not as well prepared for study in astronomy. Finding ways to help them be more successful is our challenge. We have some ideas, but we could really use some help here. We are committed to the goal of helping all of our students achieve their educational goals and at the same time become informed citizens and friends.

In the case of gender, however, there is no significant difference in success rates between men and women.

applicable)

- **H) Additional data compiled by faculty.**

- **I) List any related recommendations.**

1. Schedule 8-week short versions of Astronomy 20 and 25 during fall and spring to see if success and retention are improved. They are significantly higher in winter and summer.

2. Offer a course in Astrobiology. We think this course, because of its intrinsic interest, and lesser mathematical component, will boost success and retention, particularly for minorities.

3. Working with EOPS, put an astronomy tutor in the EOPS tutoring center to improve success for disadvantaged students.

4. Encourage astronomy instructors to use on OER (Online Educational Resource) instead of a printed textbook to help students succeed who may not be able to afford a textbook.