

**BASIC PROGRAM INFORMATION**

*Program Review is a self-study of your discipline. It is about documenting the plans you have for improving student success in your program and sharing that information with the college community. Through the review of and reflection on key program elements, program review and planning identifies program strengths as well as strategies necessary to improve the academic discipline, program, or service to support student success. With that in mind, please answer the following questions:*

**Discipline Name:** Astronomy

**Department Name:** Earth, Space, & Aviation Sciences

**Division Name:** MNH&S

Please list all participants in this Program Review :

Name	Position
Mark Lane	Professor of Astronomy & Planetarium Director
Scott Kardel	Assistant Professor of Astronomy & Assistant Planetarium Director

**Number of Full Time Faculty:** 2

**Number of Part Time Faculty:** 0

**Please list the Classified positions (and their FTE) that support this discipline:**

ESAS Department ADA (20%), Instructional Assistant IV (10%)

**What additional hourly staff support this discipline and/or department:**

N/A

**Discipline mission statement:** [Link to "How to Build a Mission Statement"](#)

The mission of the Astronomy Program at Palomar College is educate our students in the fundamental science of astronomy as a way to understand our universe. We achieve this mission by providing high quality educational opportunities in astronomy for a diverse student population who wish to achieve general education science credit, earn a two year degree in astronomy, or to fulfill transfer requirements for a degree in astronomy at California universities. As one of the core STEM disciplines, our astronomy courses promote the understanding of basic science and physical processes to create a science literate society and encourage student participation in STEM disciplines and careers.

**List any new degrees and certificates offered within this discipline since your last comprehensive review:**

N/A

Discipline Level Data: <https://sharepoint2.palomar.edu/sites/IRPA/SitePages/PRP%20Summary%20Source.aspx>

## SECTION 1: PROGRAM REFLECTION

**1A. Program Analysis:** Reflect upon and provide an analysis of your summary data.

Analysis of the data shows that our retention rates are at a near all-time high (91.1%) but our success rates have dropped noticeably (43.7%). We believe that several factors are related to these two numbers being at odds. Astronomy continues to be a popular choice for our students and attract healthy enrollment numbers that are still strong at the census date, accounting for our high retention rate. However the course is naturally rigorous and midway through the semester we have many students who have stopped trying. We have noticed that many of these students receive financial aid and are required to stay enrolled for the semester or risk losing their aid. Sadly, there is no requirement for a passing grade to keep their financial assistance. This leads to many students completing the semester attendance but earning a failing grade. For example, when we look at our Fall 2015 course grades for all Astronomy 100 sections we have an overall GPA of 68% when we exclude students who have stopped participating by the date of the final exam. However when compared to the number of passing grades (A, B, C) and failing grades (D, F) at the end of the semester, the numbers are similar to the success rates quoted in the College data. This tells us that the students who are still putting in an effort at the end of the semester are performing acceptably. Due to this discrepancy, we believe that overall GPA is a more accurate assessment for success rate. We will examine the situation further and try to find ways to boost our success rates.

**1B. Standards:** ACCJC requires that colleges establish institutional and program level standards in the area of course success rates. These standards represent the lowest success rate (% A, B, C, or Credit) deemed acceptable by the College. In other words, if you were to notice a drop below the rate, you would seek further information to examine why the drop occurred and strategies to address the rate.

**Discipline Level Course Success Rate:**

- The College's institutional standard for course success rate is **70%**.
- Review your discipline's course success rates over the past five years.
- Identify the minimum acceptable course success rate for your discipline. When setting this rate, consider the level of curriculum (e.g., basic skills, AA, Transfer) and other factors that influence success rates within your area. If you set your discipline standard below the College's standard, please explain why.

Standard for Discipline Course Success Rate: 70

Why?

N/A

**1C. Program Update:** Describe your proudest moments or achievements related to student success and outcome.

We have several students who have completed coursework in astronomy and physics who have moved on to the university level. Several of these students have graduated with bachelor's degrees in astronomy and one is working on earning her master's degree.

**1D. Program Improvement:** What areas or activities are you working on this year to improve your program? Please respond to new data as well as feedback from last year's program review.

We are focusing our attention on increasing student success rates. We have recently acquired equipment that will allow us to do more hands-on activities in the classroom - in real time - that will help students have a better grasp of some of the fundamental concepts that are central to astronomy. We believe that hands-on activities might encourage students to do better in the course when it comes to mastering these important concepts.

**1E. Unanticipated Factors:** Have there been any unanticipated factors that have affected the progress of your previous plan?

N/A

**1F. SLOACs:** Describe your course and program SLO activities this past year. How have you used the results of your assessments to improve your courses and programs? [Refer to the SLO/PRP report – https://outcomes.palomar.edu:8443/tracdat/](https://outcomes.palomar.edu:8443/tracdat/)

Most of our SLOACs are performing at or above satisfactory levels but we are still struggling to get proficiency in our SLOAC for the seasons. We have considered using a different approach that will remedy the issue with the way in which the SLOAC is assessed. Hopefully this will allow us to meet expected proficiency in the future.

**SECTION 2: PROGRAM GOALS**

**2A. Progress on Previous Year's Goals:** Please list discipline goals from the previous year's reviews and provide an update by checking the appropriate status box .

Goal	Completed	Ongoing	No Longer a Goal
Incorporate equipment in the lecture setting that allows real-time, h	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Modify the platform on the roof of the NS Building to allow for the u	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2B. New Discipline Goals:** Please list all discipline goals for this three-year planning cycle (including those continued from previous planning cycle):

GOAL #1	
Program or discipline goal	Incorporate equipment in the lecture setting that allows real-time, hands-on experiences related to some of the core concepts taught in our astronomy lectures.
Strategies for implementation	Request continued funding for equipment purchases.
Timeline for Implementation	Academic year 2017 - 18
Outcome(s) expected (qualitative/quantitative)	Higher success rates.
GOAL #2	
Program or discipline goal	Resurrection of the Astronomy 210 class
Strategies for implementation	Professor Kardel has expressed an interest in bringing back the Astronomy 210 course ("Life in the Universe"). This will require time and effort on his part to bring the course up to speed with the current science related to the topic.
Timeline for Implementation	Academic year 2017 - 18
Outcome(s) expected (qualitative/quantitative)	Increase interest in astronomy as a major and boost our retention rates in the overall program. The added benefit of this elective course is that it offers an option that will help students achieve an AA degree in astronomy.
GOAL #3	
Program or discipline goal	
Strategies for implementation	
Timeline for Implementation	
Outcome(s) expected (qualitative/quantitative)	

**Department Chair/  
Designee Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Division Dean Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Vice President Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_