

**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:** Engineering

**Department Name:** Physics & Engineering

**Division Name:** Math and Natural Health Sciences

Please list all participants in this Program Review :

Name	Position
Art Gerwig	Professor
Takashi Nakajima	Chair/Professor

**Number of Full Time Faculty:** 2

**Number of Part Time Faculty:** \_\_\_\_\_

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

One 20% Academic Department Assistance and One 50% Lab Technician

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

None

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

The mission of Engineering Program is to prepare students for transfer in various Engineering and related fields of study at four-year-universities by educating them in fundamental concepts, knowledge, critical thinking, and hands-on skills using industry standard equipment and laboratory techniques and skills of engineering.

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

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.

The success rate is averaging 80% and the retention rate is over 90% for the last 6 years. We believe this is due to our strong physics program that gives students very strong foundation of knowledge and discipline.

**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:**

- A. The College's institutional standard for course success rate is **70%**.
- B. Review your discipline's course success rates over the past five years.
- C. 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?

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

Our former students come back and tell us how well they are doing in their transferred schools all the time. However, those are their testimonies although we believe they are telling us truths. To confirm this, we would like to copy an email we received recently. His email confirms the importance of keeping our education level as it is and we should not lower our standards even administration tries to meddle with our program.

Hi Takashi and Art,

It's been many years since I've been at Palomar -- I stopped by once a few years back to see both of you after I finished my B.S., but unfortunately you were in Texas for a convention. I took your physics classes in 2007-2008 (I failed physics 230 the first time -- miserably) during the transition from the old physics building to the new one, and transferred to SDSU in 2008 for a degree in civil engineering. I think you were at a semester count of "21 to go" until retirement when I left, Takashi, so I imagine you must be getting very close!

I thought you'd both like to know I just defended my PhD in Structural Engineering under a joint program at UCSD/SDSU, and will be graduating in a few weeks. It has been a long journey, and I have been teaching solid mechanics for several years now at SDSU. You'll be pleased to hear that I have had many of your students in my classes, and every one has been a top-notch student that has sung the praises of Palomar's physics and engineering programs in preparing them for the difficult engineering courses ahead. The dedication and rigor of your program is very rare, and breeds an exceptionalism in its students that you should be enormously proud of.

To this day, I still tell stories of my time in your physics classes, and how your insistence that I fail in Physics 230 led to personal and professional growth that has been instrumental in my success as an engineer. I can say with 100% certainty that, were it not for the two of you, I would not be where I am at today. Thank you so much for your insistence on challenging students and maintaining the absolute highest educational standards at Palomar, and for having a willingness to expose students to failure in a healthy and productive way.

If things work out correctly, I'm hoping to make it up to San Marcos to see both of you sometime in the next few weeks. I've been applying for faculty positions at several universities, and may not be in San Diego too much longer. If the opportunity does not arise, I wish you both the best -- you may not have been around to see all the results, but thank you for all you've done for me.

Sincerely,

ANNUAL INSTRUCTIONAL PROGRAM REVIEW TEMPLATE for 2016-2017

Tim Johnson

**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 working on two new courses - Creo-SolidWorks and Printed Circuit Board. These are essential courses for SDSU transfers as well as students who seek for jobs at local industries with higher pay. We have been requesting an Engineering Coordinator position for the last five years in order to communicate better with four-year universities (for smooth transfer) and with local high schools (for recruiting high school students to Palomar College). However, the position has not been created yet and we will continue to work on.

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

**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/)

Having over 80% of success rate, it shows our program/course contents/instructions are appropriate and a success.

**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
A new building for Physics & Engineering	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Create Engineering Coordinator Position	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Update and modernize the lab equipment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Restart SI/LA program	<input type="radio"/>	<input checked="" 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	
Strategies for implementation	
Timeline for Implementation	
Outcome(s) expected (qualitative/quantitative)	
GOAL #2	
Program or discipline goal	
Strategies for implementation	
Timeline for Implementation	
Outcome(s) expected (qualitative/quantitative)	
GOAL #3	
Program or discipline goal	
Strategies for implementation	
Timeline for Implementation	
Outcome(s) expected (qualitative/quantitative)	

**Department Chair/  
Designee Signature:**

Takashi Nakajima

Digitally signed by Takashi Nakajima  
DN: cn=Takashi Nakajima, o=Palomar College, ou=Physics  
& Engineering Department,  
email=tnakajima@palomar.edu, c=US  
Date: 2017.04.03 15:56:53 -0700

**Date:** 04/03/2017

**Division Dean Signature:**

**Date:**

**Vice President Signature:**

**Date:**