Program Review and Planning 2019-2020

OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review is about documenting the plans you have for improving student success in your program and sharing that information with the 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 our new Guided Pathways plan, this review becomes even more crucial for the success of our students and college.

We are using the Strengths, Opportunities, Aspirations, Results (SOAR) strategic planning technique to help us focus on our current strengths and opportunities, create a vision of future aspirations, and consider the results of this approach.

BASIC PROGRAM INFORMATION

Academic Year
2019-2020

Are you completing a comprehensive or annual PRP?
Comprehensive

Department Name
Physics and Engineering

Discipline Name
Physical Science (PHSC)

Department Chair Name
Daniel Finkenthal

Division Name
Mathematics, Science and Engineering

Website address for your discipline
https://www2.palomar.edu/pages/physics/

Discipline Mission statement
The Department has not developed an agreed on mission statement for this discipline.
I will propose something similar to the Physics discipline:
Physics lies at the core of all scientific and technical disciplines. Our mission is to provide students with an outstanding learning experience in which they develop strong analytical, quantitative, and problem solving skills with a deep appreciation of the role physics plays in technical innovations and understanding the world we live in. We strive to provide an engaging teaching and learning environment for students of diverse origins, experiences, needs, abilities, and goals. We support and encourage students who intend to transfer as well as students pursuing career and technical training. We seek educational empowerment in all we do. We provide students with rigorous and comprehensive courses that allow them to perform at a high level while also fostering curiosity and excitement about the physical world. We also provide an exciting learning
opportunity for non-physics and non-science majors that provides basic understanding of physics and problem-solving skills.

(click here for information on how to create a mission statement)

Does your discipline have at least one degree or

Are any of your programs vocational (CTE/CE)?

certificate associated with it? No
No

Please list the names and positions of everyone who helped to complete this document.
Daniel Finkenthl

Full-time faculty (FTEF)
0.2

Part-time faculty (FTEF)
0.8

Classified & other staff positions that support this discipline
20% ADA (for PHYSENGR department)
50% ISA (for PHYSENGR department)

Additional hourly staff that support this discipline and/or department

PROGRAM INFORMATION

PROGRAM OUTCOMES

Begin this section by reviewing the Program Review reports for courses and programs in TracDat. All active course and program outcomes should be systematically assessed over a 3-year cycle.

- **Program** = Leads to a degree or certificate
- **Discipline** = A group of courses within a discipline

*Programs will be able to complete program completion and outcome questions.

Depending on the degree or transfer goals of our students, they have the choice of three different GE pathways:

- Associate Degree GE Requirements
- CSU GE Requirements
- IGETC Requirements

Palomar College has identified a set of General Education/Institutional Learning Outcomes, which represent the overall set of abilities and qualities a student graduating from Palomar should possess.Click here for a link to Palomar's GE/ILOs.

How do the courses in your discipline support General Education/ Institutional Learning Outcomes? In your response, please specify which GE/ILO(s) your discipline supports.
This discipline has a single course. It is primarily meant to provide general education majors with an exposure to the physical sciences, including physics, chemistry, astronomy, and the earth-sciences.

Summarize the major findings from your course outcomes assessments that are related to the General Education/Institutional Learning Outcomes that your discipline supports.
The course outcomes are poor on the main campus. We do have success at Camp Pendleton, mostly as a result of the passionate teaching of an adjunct faculty from physics.

ENROLLMENT TRENDS

Palomar College uses the WSCH/FTEF ratio as one indicator of overall efficiency in addition to the overall fill-rate for courses.

Although the college efficiency goal is 525 WSCH/FTEF and 85% fill-rate (minimal), there are many factors that affect efficiency (i.e. seat count / facilities / accreditation restrictions).

This information can be found by going to the "Program" page in the PRP Data Dashboard.

What was your efficiency trend over the last 5 years? Was it expected?
Enrollments have been dropping and are now at there lowest in five years (172). Curiously, WCSH/FTEF is at its highest (58).
Fill rates have been mostly flat at 75%. This is low compared to our other disciplines.

What factors have influenced your efficiency trends?
We have been getting students that should be taking courses in the Earth Sciences program, but these courses get cancelled.
We have a big draw at Camp Pendleton that brings consistent enrollment, and the faculty that teach there often over-enrolls his class.

Are there particular courses or programs that are not getting sufficient enrollment, are regularly cancelled due to low enrollment, or are not scheduled at this time? What is contributing to this issue? Does this level of efficiency meet the needs of the program and the district?
No, but this discipline is having difficulty. It competes directly with classes from Earth Sciences, drawing enrollments from those programs. The discipline was originally created so that a FT faculty member could move from the ES department to PHYSENGR.
It is difficult to find qualified instructors for this discipline staff and we don't have the proper facilities to conduct experiments in Chemistry, astronomy, and geology. This discipline is a burden and distraction to our department.

The Chancellor's Office Vision for Success stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

ACCJC also requires that colleges establish institutional and program level standards in the area of success rates. These standards represent the lowest success rate 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.

Click on this link to review the course success rates (A, B, C, or Credit) for your discipline.

In this section we will identify a course success rate standards and a stretch goal (what you would like to move toward) for programs.

Course Success Rates by gender, age, ethnicity, special population, location, and modality (You can access the Student Equity Plan on the SSEC website https://www2.palomar.edu/pages/ssec/)

COURSE INFORMATION

COURSE SUCCESS AND RETENTION

What is your program's standard for Discipline COURSE Success Rate?
70.0%

Why did you choose this standard?
This is the district standard.

Has your overall course SUCCESS rates increased, decreased, or stayed the same over the last 5 years?
Stayed the same

Was this expected?
Yes, success rate has been fat at 70%.
It is difficulty to find qualified instructors.

What is your Stretch goal for COURSE success rates?
80.0%

How did you decide upon the goal?
This is s GE class with no math pre-requisite. It should be a fun and rewarding experience.

Have your overall course RETENTION rates increased, decreased, or stayed the same over the last 5 years?
Stayed the same

Was this expected? Please explain.
Retention is at 90%. This partly due to the relative stability of Camp Pendleton. Also, students take this class because it fits their schedules.

Are there differences in success or retention rates in the following groups? (choose all that apply)

Are there differences in success/retention between on-campus and online courses?
N/A

Do you have any best practice methods you use for online courses to share with the community?
N/A

COURSE OUTCOMES

How is course assessment coordinated across sections and over time?
It has not been done

How have you improved course-level assessment methods since the last PRP?
No. We did our first assessment last year.

Summarize the major findings of your course outcomes assessments.
This discipline has a single course. It is primarily meant to provide general education majors with an exposure to the physical sciences, including physics, chemistry, astronomy, and the earth-sciences.

The course outcomes are poor on the main campus. We do have success at Camp Pendleton, mostly as a result of the passionate teaching of an adjunct faculty from physics. Enrollments have been dropping and are now at there lowest in five years (172), while all other courses in the PHYSENGR deparment have been increasing.

This discipline is having difficulty and we are not doing it well. It competes directly with classes from Earth Sciences, drawing enrollments from those programs. The Physics discipline also has general education

course that strongly overlaps and competes for the same students. The discipline was originally created so that a FT faculty member could move from the ES department to PHYSENGR.
It is difficult to find qualified instructors for this discipline and we don't have the proper facilities to conduct experiments in chemistry, astronomy, and geology. This discipline is a burden and distraction to our department, and is better suited for the ES department.

Reflecting on the major findings you summarized, what are some questions you still have about students' learning in your courses that you have not yet been able to address with your outcomes assessments?
It is not clear why students continue to take PHSC classes when they could take alternatives. I suspect it i somehow getting on their education plans since the catalog description of the course looks very appealing, especially for folks who intend to go into K-12 teaching.

What are some improvements in your courses that have been, or can be, pursued based on the key findings from your course learning outcomes assessments?
I believe we should hand this course over to ES. They can do a much better job of it and are eager for the enrollments. We should focus our energies on offering the PHYS-100 general education class that satisfies a laboratory science requirement.

PROGRAM CURRICULUM ALIGNMENT, MAPPING, SCHEDULING, & PLANNING

The Chancellor's Office Vision for Success stresses the importance of decreasing the average number of units accumulated by CCC students earning degrees.

Palomar College's Guided Pathways plan includes clarifying paths for students by sequencing course offerings so that they support scaffolding and timely completion. Our goal is to ensure learning through:

- The mapping and assessment of clear program outcomes that are also aligned to employer and/or transfer institution expectations.
- Engaging and applied learning experiences.
- Effective instructional practices to support students in achieving success.

How do your course outcomes help your students achieve their program outcomes?

What is your departmental strategy on how you schedule your courses including the time of day you offer courses? Do you use fast track or block scheduling (putting required classes near each other) to organize required classes (Particularly to meet the needs of disproportionately impacted students)?

How do you work with other departments that require your course(s) for program completion?
We don't; there are very few students that need this particular discipline for program completion. Program completion can be achieved by taking other science classes.

Does your discipline offer cross-listed courses?
No

Are there curriculum concerns that need to be resolved in your department? What are they?

It is difficult to find qualified instructors for this discipline and we don't have the proper facilities to conduct cross-disciplinary experiments in chemistry, astronomy, and geology. This discipline is a burden and distraction to our department, and is better suited for the ES department.

How is the potential need for program/course deactivation addressed by the department?
We want to de-activate this discipline and send students to take courses in ES department.

Is your department pursuing non credit or not-for credit options at this time?
No

Are there areas you would like to expand?
no

Click here for information about Noncredit and Community Education

Is your department offering online classes?
No

How do you consider student needs when determining which classes and how many classes should be offered online versus face-to-face?

Describe other data and/or information that you have considered as part of the evaluation of your program

CAREER AND LABOR MARKET DATA

The Chancellor's Office Vision for Success stresses the importance of increasing the percent of exiting students who report being employed in their field of study. It is important for us to consider how ***all*** of our programs connect to future careers.

Go to this website https://www.onetonline.org/ and enter your discipline in the bubble on the top right for ideas about potential occupations. Click on an example to see more detail.

What kinds of careers are available for people who complete your programs (and/or transfer)? (Refer to link above) Are there any new or emerging careers and if so how would the new or emerging careers impact your future planning?
NA. We only offer a general education class which is not suitable for anyone majoring in Physical Science. The class we have may be useful for future teachers, but there are other classes they can take to become knowledgeable about science.

What are the associated knowledge, skills, abilities (KSA's) needed for the occupations listed above? (click examples in the link above to get ideas)

How does your program help students build these KSA's?

Work Based Learning

Applied and work-based learning (WBL) allows students to apply classroom content in professional

settings while gaining real-word experience. WBL exists on a continuum that reflects the progress of experiences from awareness-building to training. Students often cycle back through the continuum many times throughout college and throughout their career. Faculty play a critical role in ensuring these experiences are embedded into curriculum and support learning.

Have you incorporated work based learning (work experience, internships, and/or service learning) into your program?
No

Do you want more information about or need assistance integrating work-based learning into your program?
No

How do you engage with the community to keep them apprised of opportunities in your program?

Program Goals

In the previous sections, you identified opportunities for improvement. Using these opportunities, develop 3-year SMART goals for your department. Goals should be Specific, Measurable, Attainable, Relevant, Time-Specific. Ensure your goals align with the mission of your department and/or the College's strategic plan.

Please list all discipline goals for this three-year planning cycle. Click here for previous PRPs and goal information.

Goals

Goal 1

Brief Description
De activate this discipline

Is this a new or existing goal?
Existing

Goal Status
Ongoing

How will you complete this goal?
We have discussed with Earth Science department and they agree that PHSC would be better suited for their department.
We need direction from Dean and VPI on how to proceed.

Outcome(s) expected (qualitative/quantitative)
Better student learning outcomes, higher enrollments for ES, clearer pathways for students.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
It will streamline our department and allow us to focus on what we are good at and where there are large opportunities for growth.

Expected Goal Completion Date
1/1/2020

STAFFING AND RESOURCE NEEDS

Instructions

1. Refer to Strategic Plan.
2. See Data.
3. See career info (In PRP)

Are you requesting additional full-time faculty?
No

Are you requesting additional Staff, CAST or AA?
Yes

In the last ten years, what is the net change in number of Staff in the department? (loss vs. gain)

RESOURCE REQUESTS AND BUDGET ALLOCATION REVIEW

Budget Analysis: This section should be completed by department chairs by the end of September.

Are there areas in your budget where there has been a historical surplus (See three year trend)?
No

Are there processes that need to be examined to ensure we are being the most efficient with funding?
No

Are there ongoing needs in your department budget that you currently do not have the resources for?
No

Do you have non-general fund sources of funding?
No

One Time Needs

For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY PERKINS AND STRONG WORKFORCE GUIDELINES (on the left menu of the web page.)

Please check with your department chair on the availability for this cycle.

Do you have one-time funding requests?
No

Review

Chair Review

Chair Comments

Chair Name **Chair Sign Date**

Dean Review

Strengths and successes of the discipline as evidenced by the data and analysis:
The course seems to do well at CPPN with high retention rates.

Areas of Concern, if any:
As faculty mentioned in the review, the PHSC courses meet general education requirements that could be met by courses in disciplines. I support the faculty decision to deactivate these courses and recommend the PHYS/ENGR and ESES chairs meet to discuss moving this process forward.

Recommendations for improvement:

Dean Name **Dean Sign Date**
Nichol Roe 11/12/2019

IPC Review

Strengths and successes of the discipline as evidenced by the data and analysis:

Areas of Concern, if any:

Recommendations for improvement:

IPC Reviewer(s) **IPC Review Date**

Vice President Review

Strengths and successes of the discipline as evidenced by the data and analysis:
Recommendations make sense. Good review.

Areas of Concern, if any:

Recommendations for improvement:

Vice President Name **Vice President Sign Date**
Jack S. Kahn,Ph.D. 1/30/2020