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OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review and Planning is about evaluating and assessing programs and documenting plans for improving student success rates. Through review of and reflection on key program elements, Program Review and Planning identifies program strengths and strategies necessary to improve the academic discipline, program, and/or services to support student success.

The College also uses Program Review and Planning as the conduit to request resources (human, technology, facilities and funding) to further help improve and support programs.

BASIC PROGRAM INFORMATION

Academic Year 2021-2022

Division Name Mathematics, Science and Engineering

Department Chair Name Jennifer Zabzdyr Are you completing a comprehensive or annual PRP? Annual

Department Name Chemistry

Discipline Name Chemistry (CHEM)

Department Chair email jzabzdyr@palomar.edu

Please list the names and positions of everyone who helped to complete this document. Jennifer Zabzdyr

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

Discipline Mission statement

The mission of the Palomar College Chemistry Department is to support student learning for success. Our primary goal is preparing our diverse student population for the pursuit of Bachelor degrees in Chemistry, as well as other Natural Science degrees with which they may enter the workplace. We provide students with the fundamental concepts, knowledge, and laboratory techniques in a healthy and safe environment.

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

Does your discipline have at least one degree or certificate associated with it?

Are any of your programs TOP coded as vocational (CTE/CE)? No

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BASIC PROGRAM NFORMATION: FACULTY AND STAFFING RESOURCES

In this section, you will identify how many faculty and staff support your discipline's programs. This information is considered when you request permanent staff and faculty hires. It is also useful as you evaluate your program and the human resources and talent you have to support our students.

To help you answer questions in this section, you will need the two links below. An arrow will appear in the spreadsheet pointing to the data you will enter.

1) Permanent Faculty and Staff Count

2) FTEF LINK

How many permanent or full-time faculty support your discipline (program)? 8

For this past fall semester, what was your Full-time FTEF assigned to teach classes? 8.00 For this past fall semester, what was your Part-time FTEF assigned to teach classes? 10.47

List the classified and other permanent staff positions that support this discipline.

ADA (12 months, 30%) ISA-IV (12 months, 100%) ISA-IV (12 months, 100%)

List additional hourly staff that support this discipline and/or department

2 Student workers (10 hours per week each for a total of 20 hours per week)

PROGRAM INFORMATION

In this section, you are asked to consider and evaluate your programs, including their program learning outcomes, the annual number of completions, goals for completions, and enrollment and efficiency trends.

PROGRAM LEARNING OUTCOMES

Begin this section by reviewing the Program Review reports for programs and courses in Nuventive Improve (TracDat). All active course and program learning outcomes should be systematically assessed over a 3-year cycle. First, look at program learning outcomes.

- 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.

How do they align with employer and transfer expectations?

Since a program is defined here as "leading to a degree or a certificate", we currently do not have a program. Our AA degree was deactivated and the AS-T degree that we were to replace it with was not approved due to its high-unit requirement.

Program Information Summary

In this section you are asked to evaluate your programs by considering their program learning outcome assessments, the annual number of completions, goals for completions, enrollment and efficiency trends and any other internal or external factors that had an impact on your program.

What factors have contributed to the success of your program(s)? Describe how they have contributed.

What factors have presented challenges for your program(s)? Describe the impact of these challenges.

COURSE INFORMATION

In this section, you will review how students perform in the courses you offer as part of your program. The Chancellor's Office Vision for Success stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

Data are provided to help you examine differences in course success rates (C or better) across student demographic categories (e.g., gender) and course type (e.g., face-to-face, online).

After you complete your review of course success data, you are asked about the assessment of student learning outcomes at the course level, progress you have made in these assessments, and changes you have implemented as a result/

COURSE SUCCESS AND RETENTION

ACCJC also requires that colleges establish institutional and program level standards and stretch goals for course success rates.

Program-set standards for course success rates represent the lowest success rate deemed acceptable by your discipline. 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. The College's institution-set standard for course success rates is 70%

Program-set stretch goals for course success rates represent the success rates you aspire your students to achieve.

Link to Course Information

The data includes overall success (% C or better) and retention rates (% No Ws). The data tables include course 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/)

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

60.0%

Why did you choose this standard?

Chemistry is a challenging subject so 60% is a realistic success rate.

What is your stretch goal for course success rates? 65.0%

How did you decide upon the goal?

Recent success rates have dropped from an average of 64.4% (Fall 2015 through Fall 2019) to 60.0% (Fall 2020). This is probably due to the switch to online learning resulting from COVID. Increasing success rates up to 65% is a realistic stretch goal.

COURSE STUDENT LEARNING OUTCOMES (SLOs)

Summarize the major findings of your course level student learning outcomes assessments.

In our general chemistry lecture sequence, chem 110 and 115, 73% of students met the learning outcome for the courses. In the general chemistry lab sequence, chem 110L and 115L, 78% of students met the learning outcomes. In our organic chemistry sequence, chem 220 and 221, 82% and 62% of students met the learning outcomes, respectively.

Excluding courses that haven't been offered in the last three years, confirm that all of your courses have been assessed in the last three years.

Yes

This section is intentionally blank for annual PRPs. Please click "Next" to continue.

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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 <u>all</u> 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? If so, how would the new or emerging careers impact your future planning?

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 awarenessbuilding 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.

If you require any additional resources beyond your exiting budget, please be sure to request those resources in the next section titled "Resources".

Goals

Goal 1

Brief Description

To update technology (chemical instruments) in order to remain current with chemical education pedagogy.

Is this a new or existing goal?	Goal Status
Existing	Ongoing

How will you complete this goal?

Devote a part of our budget each year to gradually replacing aging instrumentation, with newer instrumentation.

Outcome(s) expected (qualitative/quantitative)

Qualitative and quantitative

Organic chemistry relies heavily on chemical instrumentation (GC, NMR, etc). The instruments are expensive to purchase and maintain. However, for our students to transfer and be competitive with their university peers, they need experience using these instruments. Across the board, updating our chemical instrumentation would allow us to offer lab curricula that is current with current chemical education pedagogy. This will ensure that our students are fully prepared to begin their upper division coursework and are not at a disadvantage compared to their university peers. We would also be able to offer more undergraduate research opportunities to our students. This will give them the hands-on experience that they will need to be competitive with their peers and ready them to participate in undergraduate research at their 4-year institution.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways? Strategic Goal 1, Objective 1.2: Encourage and promote innovative instructional and student support practices and strategies focused on strengthening teaching and learning. The ability to offer updated lab curricula and opportunities for research projects is in line with Goal 1, Objective 1.2.

Strategic Goal 2, Objective 2.6: To address opportunity gaps among the college's diverse student body. Having computers available for all students to check out, rather than expect that all students can provide their own computers, will help to address the opportunity gap between higher income and lower income students, while ensuring that all students can benefit from our updated curriculum. This goal is also aligns with our department mission to prepare students for transfer as an upper division chemistry major. Ensuring that we are offering curriculum that is consistent with that offered at universities will ensure that our students transfer and be on equal footing with their university peers

Expected Goal Completion Date

8/21/2023

Goal 2

Brief Description

To increase our presence in the community through outreach.

Goal Status

Ongoing

Is this a new or existing goal?

Existing

How will you complete this goal?

When possible, we would resume participation in the STEM conference and other outreach events outside of Palomar, such as Science Night at San Marcos Middle School. Hosting and attending events such as these cost money, including but not limited to chemicals and other materials for demos, transportation costs, and compensation for time spent prepping for the events.

Outcome(s) expected (qualitative/quantitative)

Qualitative

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways? One of Palomar College's values that is shared by the department is "physical presence and participation in the community". This is exactly what we would like to accomplish with this goal.

Expected Goal Completion Date

8/21/2023

RESOURCES

Congratulations! You are nearing completion. In this section, you will consider the resources you need to implement your three-year program review plan and/or address any findings from your assessment of your discipline.

The section is organized into the following four parts:

PART 1: Staffing Needs (Faculty and Additional Staff)

PART 2: Budget Review

PART 3: Technology and Facilities Needs

PART 4: One Time Request for Other Needs (NonTechnology Equipment, Supplies, Operating Expenses, Travel)

PART 1: STAFFING NEEDS

Requests for faculty will follow the prioritization process currently in place in IPC, and the IPC SubCommittee. Requests for new staff positions will be prioritized at the division level and reviewed at Exec.

Are you requesting additional full-time faculty? No

NOTE: If you are requesting full-time faculty, you must go back to the Labor Market section of the form to complete that section. It is required when requesting additional faculty positions.

Are you requesting new Classified, CAST or AA positions? Yes

REQUEST FOR ADDITIONAL CLASSIFIED, CAST, AA

PART 2: BUDGET REVIEW

Review your Budget/Expenditure reports for fiscal year 2019, 2020, 2021. Consider your three-year PRP plan.

Click on the link below to access directions to the Available Budget Report to complete this section.

How to Request the Available Budget Report

Reflecting on your three-year PRP plan, are there any budget considerations you would like your dean/supervisor to be aware of for the upcoming year?

No

NOTE: PARTS 3, 4 and 5 – TECHNOLOGY, FACILITIES AND OTHER NEEDS

1. One-Time Fund Requests. The college is implementing a process for prioritizing and allocating funds for one-time needs/requests tied to Program Review and Planning. Prioritization will take place through participatory governance in planning councils and the Budget Committee. Then, a recommendation will be made to Exec for funding of request utilizing various funding sources.

For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES.

Consider submitting one-time requests only if you have verified that you cannot fund the request using your general discretionary funds or other funds.

2. Technology and Facilities Review. From now on, ALL requests for technology will go through an institutional review process. If you request technology here, you will see a description of the process below.

PART 3: TECHNOLOGY AND FACILITIES NEEDS

Will you be requesting any technology (hardware/software) this upcoming year? No

Part 4: Facilities Requests

Do you have resource needs that require physical space or modification to physical space? $\ensuremath{\mathsf{No}}$

PART 5: OTHER ONE-TIME NEEDS

For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES. Please check with your department chair on the availability for this cycle.

Do you have one-time requests for other items (e.g., Non-Technology Equipment, Supplies, Operating Expenses, Travel) that your budget or other funding sources will NOT cover? No

I confirm that all full-time faculty in this discipline have reviewed the PRP. The form is complete and ready to be submitted. Yes

Enter your email address to receive a copy of the PRP to keep for your records. jzabzdyr@palomar.edu