Chemistry-FD Chemistry

Annual Program Review Template 2023

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1. Number of full-time faculty in the program.

6

2. Number of part-time faculty in the program.

16 Total: 11 PT with REP, 3 PT without REP, 2 teaching under Article 19

3. Number of staff in the program.

1, we have one lab technician supporting our program. A lab technician serving our evening classes was transferred to Vet Tech this past summer

4. Do the above numbers reflect any staffing changes?

No

5. Refer to the most recent Comprehensive Program Review, what were the identified actions for improvement? Identify any current and/or new Strategic Goals.

Data from 19-20 Comprehensive Program Review suggest changes are necessary to improve student course success.

### **Current/New Strategic Goals:**

**1.** Increase enrollment in Chemistry courses to meet demand as students return to in-person learning.

2. Increase student retention in our department.

3. Department-wide discussion about student learning goals within our discipline.

6. What actions identified in the Comprehensive Program Review (or most recent Annual Program Review if no Comprehensive Program Review) have you completed this year?

1. Coordinated with the Biology department to minimize scheduling conflicts with the Biology course offerings.

2. Offered student-centered schedules with flexibility in modality, evening courses, and labs that meet on

Fridays in order to meet increasing enrollment and improve flexibility.

3. Offered Dual enrollment courses in collaboration with Khan Lab School and Eastside Prep in Summer 2023. Additionally, attracted greater numbers of dual enrollment students in Introductory and General Chemistry course series.

4. Worked with the Foothill Inquiries Team to inquire about learning goals in the Chemistry Program .

5. Worked with the STEM Division 13-55 Implementation Team, focusing on Issue 9: Retention. Contributed discipline-specific resources on equity to the STEM Division repository of resources.

7. Explain your implementation timeline and if there have been any changes or updates.

N/A





8. Explain the evidence the program used to evaluate progress and provide an update on progress.

Student success rates in Chemistry was 78% for 2022-23, an increase from 74% from 2021-22. A similar trend is observed for student success rates by gender where the student success rate for women was 77% for 2022-23, which is higher than that for 2021-22 (74%). Student success rates for Latinx students was 69% for 2022-23, an increase from 62% for 2021-22. The student success rates for Black, Native American and Pacific Islander students decreased from 2021-22 to 2022-23.

Chemistry students enrolled in online sections: hybrid-on campus/sync (81%), hybrid-on campus/asynch (87%) had higher success rates than face-to-face sections (75%).

Enrollment has rebounded this year, and is robust for Winter 24. We offered 91 sections in the 2022-2023 academic year, which is a 12% decrease from 103 the sections offered the previous academic year. Overall enrollment decreased by 14%, from 2,565 students in 2021-22 to 2,212 students in 2022-23.

9. Click the link and follow the instructions to the Disproportionate Impact dataset, then respond to the prompt below.

https://foothilldeanza-

my.sharepoint.com/:b:/g/personal/20078222\_fhda\_edu/EctjgGNEurtMlb1n6ZQ5k3kBNTEjiE9G\_kGSHMhfM1tsrA? e=yDcC7c

Identify the groups that are experiencing a disproportionate impact in the most recent year (highlighted in orange). In the text box below, provide the percentage point gap and the number of additional successes needed to erase the percentage point gap for each group.

Groups	Percentage Point Gap	Additional successes needed to erase percentage point gap
Black	-19	14
Latinx	-14	91
Pacific Islander	-29	5
Female	-3	41
Low Income	-11	103

10. Use this opportunity to reflect on your responses in this document. Include your closing thoughts.

The Chemistry department is making progress towards closing the achievement gap within our student population. Coming back after the pandemic has been challenging for both students and faculty. We anticipate higher enrollments emerging from the pandemic and are working on ways to better serve our students through scheduling, modalities of instruction, and discussions both within and outside the department around equity.

We are aware that mathematics preparation plays a critical role in student success, especially computational tasks. Some faculty in the department have considered mathematics "scaffolding" to support introductory courses, with the highest preparedness challenges.

Bob Cormia is closely monitoring the intersection of data science and chemistry, which will impact students obtaining certificates and degrees especially after 2025. He believes professional development for chemistry faculty in data science may be an opportunity to engage with new opportunities in modeling and visualization, which may also enhance student learning (engagement).





# Click on the link below to view the Annual Program Review Rubric.

https://foothilldeanza-my.sharepoint.com/:w:/g/personal/20078222\_fhda\_edu/Ec2dqPH1B2RHinzFtnIz6sYB7-DOzW9lv1KkGyWdLuZkbg?e=ClfFMU

This form is completed and ready for acceptance.





### Chemistry-FD

# Rubric Annual Program Review

# Criteria

The program's responses...

- align with the program's goals
- align with data
- are informed by data
- are within the control of the program
- have measurable outcomes

#### Meets Expectations

□ Needs Improvement

## Feedback

The chemistry department is collectively working on improving success gaps in identified populations. AB 705/1705 has had ripple effects to mathematics preparation for students in chemistry, and the faculty are exploring ways to remedy this. There is a push for exploring how data science/AI can contribute to further student learning in the discipline. The department lost one of their FT faculty abruptly during the summer '23 quarter, for which they then requested a new full-timer through the faculty prioritization process, for which the school approved. They are currently going through the hiring committee process.

This form is completed and ready for acceptance.



