



## Program Review Request Instruction

**Do you have any courses that have not been updated to CCI, within the required timeframe (6 or more years for a transfer-level course, 3 years or more for a CTE course)?**

- ☐ Yes  
☒ No

**Are there courses in your Program (Degree/Certificate) that have not been successfully offered since the last Program Review?** Please note, classes that were cancelled, they were not successfully offered)

- ☐ Yes  
☒ No

**Do you have active courses that are not part of a degree or certificate?**

- ☒ Yes  
☐ No

**Please indicate the name of the course(s) and the name(s) of the certificate(s) or degree(s) you intend to connect it to when you submit your revision to CCI.**

Neither CHEM G099N nor G205 will be connected to a course or degree. These courses train students to assist instructors in the teaching of chemistry lab classes.

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## STUDENT LEARNING OUTCOMES

**Do any of your SLOs use the exact wording as the course objectives?**

(SLOs should be written to reflect the course objectives while not using the exact same language as the course objectives).

- ☐ Yes  
☒ No

**How has your department/program utilized SLO (Student Learning Outcome) results to make changes or improvements to your Program?**

One of the Chemistry program SLOs involves the development of chemistry laboratory skills. The faculty in the Chemistry program have reviewed the chemistry laboratory skills being taught across our curriculum with the aim of eliminating unnecessary redundancies and of ensuring that all necessary skills are being taught. One omission noted in this analysis was the proper use of weighing paper. This omission has been corrected. Instruction in the proper use of weighing paper is now a part of the Chemistry program, occurring in General Chemistry A (CHEM G180).

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## GOALS AND REQUESTS FOR FUNDING



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**Requests – If you are requesting any of the following, they MUST be addressed within your Department goals. These forms must be submitted separately from the Program Review.**

- Faculty
- Facilities, Equipment, Technology & Other
- Classified Personnel

### **GWC Strategic Plan Goals Legend**

1. **Enrollment:** GWC will increase credit and noncredit enrollment while providing efficient academic programs and student services.
2. **Equity and Success:** GWC will support, enhance, and develop equity-minded services and academic programs that lead to student success.
3. **Completion:** GWC will ensure students' timely completion of degrees and certificates by providing high quality academic programs and student services.
4. **Workforce Preparation:** GWC will support student success by developing and offering academic programs and student services that maximize career opportunities.
5. **Facilities:** GWC will provide flexible, accessible, and sustainable learning environments that support the success of students, faculty, staff, and communities.
6. **Professional Development:** GWC will support the success of all employees by providing professional development opportunities that focus on the achievement of the College Goals.
7. **Communication:** GWC will effectively communicate and collaborate within the College and its communities.

### **GOALS FROM PREVIOUS PROGRAM REVIEW CYCLE**

*Please refer to your previous Program Review cycle and summarize all outcomes for each goal.*

<b>Summary and Outcomes of Previous Goals (from the last Program Review) including resource requests and if they were funded or not.</b>
<p>The Chemistry program had five goals for the previous program review cycle:</p> <p>1. Improve our outreach activities.</p> <p>While we have contacted the College outreach specialist regarding creating informational brochures describing our program and organizing on-campus outreach events, we've been unable to coordinate our schedules in order to accomplish anything substantive. We also planned to develop sets of science demonstrations for various age groups, but this work was meant to supplement on-campus outreach events and since no on-campus outreach events for various age groups were held, no progress on this was accomplished. Another aspect of our outreach work was the goal of identifying professional scientists, ideally individuals whose race, ethnicity, or special population status matches that of the groups we serve who are experiencing a disproportionate impact, willing to talk about their work oncampus. This was accomplished, with our department partnering with the STEM Center</p>



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to host speakers. The number of current and potential students who attended these outreach events was significant, as was their satisfaction with each event. However, the number of students enrolled in chemistry courses (CHEM 110, 130, and 180) has not increased as a result. One last action taken regarding this goal was the outfitting of the third-floor Math & Science display cases with items that better share the excitement and wonder that chemistry, physics, and astronomy can inspire. By better sharing the excitement and wonder of these programs, we hope to attract more student interest in them. This goal has been partially achieved.

### 2. Improve lab instruction in CHEM 180, 185, 220, and 225.

Our requests to purchase additional conductivity meters, glass burets, and a UV/Vis spectrometer for use in the chemistry teaching labs was approved. These acquisitions led to (1) more students being able to use lab equipment, as opposed to sharing it, (2) improved experimental accuracy, and (3) more efficient use of lab time. However, there was no noticeable improvement in overall lab success rates. This goal was largely met.

### 3. Secure the quality of our stockroom operations.

A night stockroom manager was hired, dramatically decreasing the likelihood of turnover in this position. This goal has been met.

### 4. Reduce the achievement gap observed in student success rates for Hispanic/Latinx students, the largest of our disproportionately impacted groups.

In our previous program review we stated that we would seek advice from the Equity Squad on how we can reduce the achievement gaps observed in our courses and pursue professional development activities in order to learn relevant instructional techniques. Both of these actions were taken. We asked for advice from the Equity Squad on ways to address these equity gaps and all full-time faculty in the program completed one or more professional development activities related to equitable teaching practices. These professional development activities have led to changes in instruction. Additionally, most courses in the program use embedded tutors to support student learning. Unfortunately, there has not been a significant reduction in the achievement gaps for Hispanic/Latinx students despite these actions. This goal has not been accomplished.

5. Establish one or more partnerships with local businesses so that these local businesses see our students as their first choice for internships and jobs. Little formal progress was made on this goal, mainly because the champion of this goal was a part-time faculty member who no longer works at GWC. Informally, however, several of our students have found positions with AQMD, a result of one of our faculty having a personal relationship with an AQMD employee. This goal has not been achieved.

## GOALS FOR CURRENT PROGRAM REVIEW CYCLE

*Current goals should be connected to GWC's Strategic Plan Goals.*