

# LMC Program Review Year 3 Update 2019-2020

## Instructional Unit Name: CHEMISTRY

### Introduction

In 2017-2018, all departments/programs completed a Comprehensive Program Review (CPR), in which goals were set for the 2017-2022 program years. Los Medanos College (College) is now in year three of a five-year review cycle. New to this program review cycle is the passage of the State's [Vision for Success](#) plan which establishes system-wide goals that can only be attained by each department contributing to college-level goals aligned with the state plan. Toward that end, the [Contra Costa Community College District Strategic Plan \(CCCD Strategic Plan\)](#) adopted by the Governing Board at its June 2019, meeting, aligns with the *Vision for Success* and plans are underway to ensure that the *Los Medanos College Educational Master Plan (LMC EMP)* also supports college and state goals. The intent is to direct College efforts toward a singular and coordinated set of goals.

The *Vision for Success* directs each college to increase degree and certificate completion and increase student transfers, improve time to completion, increase job placement in field of study, narrow achievement gaps and establishes targeted goals in five primary areas as follows:

**Goal #1** Increase by 20 percent the number of CCC students annually who acquire associates degrees, credentials, certificates, or specific skill sets that prepare them for an in-demand job.

**Goal #2** Increase by 35 percent the number of CCC students' system-wide transferring annually to a UC or CSU.

**GOAL #3** Decrease the average number of units accumulated by CCC students earning associate's degrees, from approximately 87 total units (the most recent system-wide average) to 79 total units—the average among the quintile of colleges showing the strongest performance on this measure

**GOAL #4** Increase the percent of exiting CTE students who report being employed in their field of study, from the most recent statewide average of 69 percent to an improved rate of 76 percent—the average among the quintile of colleges showing the strongest performance on this measure in the most recent administration of the CTE Outcomes Survey.

**Goal #5** Reduce equity gaps across all of the above measure through faster improvements among traditionally underrepresented groups as identified by the college.

The College can only meet its local and state goals with the contribution of each department's efforts. As noted, the intent is to direct College efforts towards a singular and coordinated set of goals to garner greater efficiencies and avoid duplication of effort.

The *Program Review Year 3 Update* includes five components with specified timeframes (not in chronological order) for draft and completion:

**Item 1. Program Update (October 1 – October 31)**

Provide an update to the department’s 2017-18 CPR

**Item 2. Setting the Vision for Success Goals 2021-22 (November 1 – November 27)**

Department/program alignment of goals, action steps, timeline, responsible party and next steps – all tied to the *Vision for Success* indicators. For ease of reference, the *Vision for Success* indicators are included in this section.

**Item 3. Assessment Date and Effectiveness (August 26 – September 30)**

Status report on the review and assessment of courses and next steps

**Item 4. Course Outline Updates (August 26 – September 30)**

Status report on the review and assessment of Course Outline of Records and next steps

**Item 5. Resource Needs (February 1 – February 28)**

Resource needs to meet goals, if any.

The table below shows a list of the above components in chronological order. The intent is to complete sections of Program Review by these dates to better assess and inform the process.

Date	Program Review Update Component
August 26 – September 30	Item 3. Assessment Date and Effectiveness Status report on the review and assessment of courses and next steps.
August 26 – September 30	Item 4. Status report on the review and assessment of Course Outline of Records and next steps.
October 1 – October 31	Item 1. Provide an update to the department’s 2017-18 CPR
November 1 – November 27	Item 2. Department/program alignment of goals, action steps, timeline, responsible party and next steps – aligned with the <i>Vision for Success</i> indicators.
February 1 – February 8	Item 5. Resource Needs

## 1. Program Update (Oct 1 – Oct 31)

1a. Provide any important changes or updates within your program since your last CPR. (New degrees, new curriculum, staffing changes, etc.)

The Physical Science Department had the following important changes:

Chemistry hired an additional full-time faculty member for the Pittsburg Campus, Girlie Sison.

Dennis Gravert transferred to the Brentwood Campus effective Fall 2020.

1b. Please address the following enrollment data provided for your program.

1.b.1. What are the enrollment trends over the past 3 years, beginning with Fall 2017? (Please address census enrollment, census fill rate, and productivity (Ftes/Ftef))

Level 1	Level 2	Level 3	Census Enrollm..	Census Fill Rate	Ftes/Ftef
2017-2018	CHEM		1,150	93.5%	18.2
2018-2019	CHEM		1,257	94.8%	17.4
2019-2020	CHEM		711	95.6%	17.3
Grand Total			3,118	94.5%	17.7

Based on Census Enrollment, student demand for Chemistry courses is increasing. This is supported by the Census Fill Rate which is very high. Productivity is high overall; however, productivity has decreased slightly. Based on enrollment, productivity did not decrease because of fewer students (the number of chemistry students has increased!) Perhaps we added an additional section of chemistry when we converted to the 16-week semester system in 2018? That would require hiring an additional instructor which would lower productivity.

1.b.2. What does the data suggest in terms of future needs/directions?

We need to add more sections of chemistry. In Pittsburg, there are only 2 laboratory classrooms available, and classrooms for lecture are limited, especially during times favored by students. The new Brentwood Center will have 1 new chemistry laboratory, so this is where growth can occur!

1c. Provide a brief update of your program's goals as listed in your (CPR) 2017- 2018. Given these goals, please provide a brief update on: (a) Goals completed since their submission in 2018, and the impact of that completion on program effectiveness; (b) Goals abandoned with an explanation of why they were abandoned and (c) Goals still in progress or modified to be achieved by 2021-2022. Please include action steps, timeline, and responsible parties.

Goals	Completed/ Abandoned/ In Progress/ Modified	Impact/ Explain/ Action Steps	Timeline/ Responsible Parties
<b>Goal 1: Laboratory Best Practices: Implement a Chemical Stockroom program modeled after standard best practices of industrial and</b>	In Progress	Paul West, Science Lab Coordinator, has made much progress towards our goal. Improvements include formalized training of student workers, documentation of lab procedures, standard testing of laboratory (deionized) water.	Paul West, ongoing

<p><b>government labs and Resolve laboratory and stockroom issues that negatively impact student learning.</b></p>			
<p><b>Goal 2: Chemistry at Brentwood: Hire and Mentor a new full-time Chemistry Instructor in anticipation of expansion of the Chemistry Program into the new Brentwood Center</b></p>	<p>Completed/In Progress</p>	<p>The hiring of Girlie Sison has been completed, and her mentorship is on going. Dennis Gravert is transferring to the new Brentwood Center.</p>	<p>Mindy Capes and Dennis Gravert are serving as mentors for Girlie Sison.</p>
<p><b>Goal 3: Undergraduate Research: Provide all STEM majors a research experience during their studies at LMC</b></p>	<p>In Progress</p>	<p>Mindy Capes, Girlie Sison, and Dennis Gravert are modifying the laboratory curriculum to create opportunities for undergraduate research.</p>	<p>Mindy Capes, Girlie Sison, and Dennis Gravert: on going</p>

**For CTE programs only:**

1c. Community and Labor Market Needs (Link Ed Code [78016](#), Title 5, [51022](#))

N/A

1d. Advisory Board Update and Analysis (CTE related only) Include dates of Advisory Board meetings in 2018-2019, and those completed or planned in 2019-2020.

N/A

## 2. Setting Vision for Success Goals for 2021-22 (Nov 1—Nov 27)

The *Vision for Success* directs each college to increase degree and certificate completion and increase student transfers, improve time to completion, increase job placement in field of study, narrow achievement gaps and establishes targeted goals in five primary areas. The College can only meet its local and state goals with the contribution of each department’s efforts. As noted, the intent is to direct College efforts towards a singular and coordinated set of goals to garner greater efficiencies and avoid duplication of effort.

2a. The following table lists the *Vision for Success* indicators that we must align to as a college and as a district. Please look at your program data (Tableau) for each of the following *Vision for Success* indicators. Please address all indicators that are relevant to your program, set your program goal, indicate the action steps, timeline and responsible parties to achieve program goals.

Vision for Success Indicators and ACCJC Indicator	Program Set Goals for 2021-2022	Action Steps	Timeline	Responsible Parties	Notes
<b>Course Success</b>	CHEM 80.4%				
<b>Degrees ( AA, AS, ADT)</b>	CHEM AS 0 CHEM AST 1.2				
<b>Certificates of Achievement</b>	N/A				
<b>Unit Reduction</b>	N/A				
<b>CTE Jobs</b>	N/A				

2b. The Vision for Success Goal 5—Equity. The College has identified three disproportionately impacted (DI) populations: African-American, economically disadvantage students (low income), and foster youth students. The College’s goal is to reduce the equity achievement gap on course success for disproportionately impacted (DI) student populations. Please look at your program data (Tableau) for each of the following DI population. Please pick one or more DI populations that are relevant to your program, set your program goal, indicate the action steps, timeline and responsible parties to achieve program goals.

Course Success by DI Population	Program Set Goals for 2021-2022	Action Steps	Timeline	Responsible Parties	Notes
<b>African American</b>	CHEM 72%	The goal was set by taking the average of the last 3 years and adding 2%. Action Steps:	ongoing	Dennis Gravert Melinda Capes	

		<p>CHEM: we have switch all textbooks to Zero Textbook Cost (ZTC) options and we are rewriting our lab manuals as ZTC options also.</p> <p>EOPS MESA interactions AEW (AcademicExcellence Workshops)</p>		<p>Girlie Sison</p>	
<b>Low Income</b>	CHEM 77%	<p>The goal was set by taking the average of the last 3 years and adding 2%. (see above)</p>	Ongoing	<p>Dennis Gravert Melinda Capes Girlie Sison</p>	
<b>Foster Youth</b>	CHEM 79%	<p>The goal was set by taking the average of the last 3 years and adding 2%. Encourage group work and community-building (the laboratory work especially assists with this goal)</p>	Ongoing	<p>Dennis Gravert Melinda Capes Girlie Sison</p>	

### 3. Assessment Update and Effectiveness (August 26-Sept 30)

- a. Please review the data provided on assessment status of courses in your discipline in Cycle 2 (2017/18-2020/21), if there were any courses that were not assessed in Cohorts 1 and 2, please (a) list them, (b) explain why they were not assessed, (b) when are you going to assess them, and (c) who is going to assess them.

Course	Reason course was not assessed	When course will be assessed	Faculty Responsible for Course Assessment
(all assessed)			

- b. Discuss the results of any outcomes assessments (e.g. CSLO) performed this year. What changes, if any, are planned to improve student success?

This year (2019-2020) our department has scheduled the assessment of Chem 25, Engin 25, Engin 38, Phys 37, and Phys 41.

Planned improvements: Mindy Capes will coordinate assessment among the sections of Chem 25 taught by several instructors. In the past, only a few sections were assessed.

### 4. Course Outline of Record Updates (August 26 – Sept 30)

Please review the data provided on the status of COORs in your discipline. (Note: These data do not reflect courses submitted after May 2019. For each COOR that has *not* been updated since May 2019, please indicate the faculty member responsible for submitting the updated COOR to the Curriculum Committee by **November 1, 2019**.)

Course	Faculty Responsible for COOR Update
<b>CHEM 6</b>	Dennis Gravert
<b>CHEM 7</b>	Dennis Gravert

### Impact of Resource Allocation

If you have received funding via the Resource Allocation Process, you will be asked by the Office of Business Services how the resource helped you in achieving your program goals.

## 5. Resource Needs (Feb 1 – Feb 28)

Resource needs to meet goals, if any. If there are no requests, this section may be skipped.

<b>Faculty/Staff Resource Request</b>			
Department/Unit Goal - Reference #		Strategic Goal and/or Objective - Reference #	
Department/Unit Name		Position Name/Classification	FTE
Position Type	Funding Duration	Funding Source	Est. Salary & Benefits
<input type="checkbox"/> Faculty R/T <input type="checkbox"/> Classified <input type="checkbox"/> Manager <input type="checkbox"/> Student	<input type="checkbox"/> On-going/Permanent <input type="checkbox"/> One-time	<input type="checkbox"/> Operations (Fund 11) <input type="checkbox"/> Other <input type="text"/>	
<b>Justification:</b>			

<b>Operating Resource Request</b>	
Department/Unit Goal - Reference #	Strategic Goal and/or Objective - Reference #
Department/Unit Name	Resource Type
	<input type="checkbox"/> Equipment <input type="checkbox"/> IT Hardware/Software <input type="checkbox"/> Supplies <input type="checkbox"/> Facility Improvement <input type="checkbox"/> Service/Contract <input type="checkbox"/> Other
General Description	Est. Expense
<b>Justification:</b>	



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<b>Professional Development Resource Request</b>	
Department/Unit Goal - Reference #	Strategic Goal and/or Objective - Reference #
Department/Unit Name	Resource Type
	<input type="checkbox"/> Conference/Meeting <input type="checkbox"/> Materials/Supplies <input type="checkbox"/> Online Learning <input type="checkbox"/> IT Hardware/Software <input type="checkbox"/> Other
General Description	Est. Expense
Justification:	