

**CENTRAL NEW MEXICO COMMUNITY COLLEGE**  
**ASSESSMENT REPORT**  
*Due to SAAC by October 15*

**PART 1: CONTACT & PROGRAM IDENTIFICATION**

Report Year and Contact Information			
<u>2016-2017</u> Academic Year	<u>Mark Pecak</u> Contact Person	<u><a href="mailto:mpecak@cnm.edu">mpecak@cnm.edu</a></u> Email	<u>x50014</u> Phone Number

Subject of this Assessment Report		
Program: _____  <input type="checkbox"/> Certificate <input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS	Gen Ed Area: <u>Lab Science - Chemistry</u>  Applicable to: <input checked="" type="checkbox"/> AA/AS <input type="checkbox"/> AAS	Non-Award, Non-Gen-Ed Discipline Area:  _____

**PART 2: THE YEAR IN RETROSPECT**

Program/Area Highlights (Including, wherever applicable, course completion, job placement, and licensing examination information)
CHEM 1410/1492 has the largest enrollment of the CHEM courses in MSE, with 2293 students enrolled in CHEM 1410 this AY.

Changes Made in Support of Student Learning
We have added a component of sustainability to the SLO's for CHEM 1410 to help increase awareness of the relationship between chemistry and the environment.

**PART 3: REPORT ON RECENT ASSESSMENT OF STUDENT LEARNING**

Student Learning Outcome(s) Assessed <small>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</small>	Classes/Cohorts Assessed
Gen Ed outcome #1: Employ critical thinking skills to judge the validity of information from a scientific perspective.	Chemistry 1492 lab
Gen Ed outcome #6: Relate science to personal, social or global impact.	Chemistry 1410 lecture

Measurement Tool(s) Used <i>To add rows: right-click in cell below and select "Insert," "Insert Rows Above"</i>	Enter X's for type of tool				Initial Achievement Target or Expectation
	Internal	External	Direct	Indirect	
CHEM 1492 – Final exam	X		X		
CHEM 1410 – Final exam	X		X		

Assessment Findings
Gen Ed outcome #1 (CHEM 1492): We found that students had a 76% success rate on our assessment questions. Gen Ed outcome #6 (CHEM 1410): We found that students has a 46% success rate.

Analysis and Interpretation of Assessment Findings
Gen Ed outcome #1 (CHEM 1492): Two questions were used and results were averaged together for this outcome, though one had a better success rate than the other, I believe the two together give us a better picture of the student's abilities. Gen Ed outcome #6 (CHEM 1410): The same question was used for Fall 16 and Spring 17, the results for the Fall courses were 9-10% better than the spring, across all sections of the course. At this time, I believe it is the phrasing of the assessment question that needs revision.

Action Plan in Support of Student Learning
Gen Ed outcome #1 (CHEM 1492): no plan at this moment for changes Gen Ed outcome #6 (CHEM 1410): A revision to the assessment tool needs to be made to clarify the questions being presented.

**Please indicate with an X all of the following that characterize the types of changes described in the above action plan:**

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> Pedagogical change     | <input type="checkbox"/> Course revision              | <input type="checkbox"/> Process revision             | <input type="checkbox"/> Curricular revision                        |
| <input type="checkbox"/> Budgetary reallocation | <input type="checkbox"/> Faculty training/development | <input type="checkbox"/> Assessment criteria revision | <input checked="" type="checkbox"/> Assessment methodology revision |

<b>Recommendations, Proposals, and/or Funding Requests</b>

**PART 4: ASSESSMENT CYCLE PLAN UPDATE** (Copy and paste from original plan if unchanged)

<b>Cycle Years</b>	<b>Description of Changes Made</b> (if applicable)
2017	Change Outcome 6 Assessment to CHEM 1410 to get a larger set of non-majors students.

<b>Student Learning Outcomes</b>	<b>When Measured</b>	<b>Where Measured</b>	<b>How Measured</b>
1. Employ critical thinking skills to judge the validity of information from a scientific perspective.	Fall 2019- Spring 2021	CHEM 1410 Lecture Final	Direct/Internal. Evaluate student responses to selected questions on multiple choice final.
2. Apply the scientific method to formulate questions, analyze information/data and draw conclusions.	Fall 2021-Spring 2022	CHEM 1492 Lab Final	Direct/Internal. Evaluate student responses to selected questions on multiple choice final.
3. Properly operate laboratory equipment to collect relevant and quality data.	Fall 2017-Spring 2019	CHEM 1492 Lab Practical	Direct/Internal. Grade selected questions on lab practical using a common rubric.
4. Utilize mathematical techniques to evaluate and solve scientific problems.	Fall 2017-Spring 2019	CHEM 1710 Final	Direct/Internal. Evaluate student responses to a series of related questions on the final.
5. Communicate effectively about scientific ideas and topics, in both oral and/or written formats.	Fall 2019-Spring 2021	CHEM 1092 Writing Assignment	Direct/Internal. Evaluate student responses to writing assignment using a rubric.
6. Relate science to personal, social or global impact.	Fall 2021-Spring 2022	CHEM 1010 Discussion Posts	Direct/Internal. Evaluate student responses to discussion post prompts using a rubric.

<b>CNM Gen Ed Lab Science</b>	<b>NM State Gen Ed Area III: Laboratory Science</b>
1 Employ critical thinking skills to judge the validity of information from a scientific perspective.	5 Apply scientific thinking to real world problems
2 Apply the scientific method to formulate questions, analyze information/data and draw conclusions.	2 Solve problems scientifically 1 Describe the process of scientific inquiry
3 Properly operate laboratory equipment to collect relevant and quality data.	2 Solve problems scientifically
4 Utilize mathematical techniques to evaluate and solve scientific problems.	2 Solve problems scientifically 4 Apply quantitative analysis to scientific problems
5 Communicate effectively about scientific ideas and topics, in oral and/or written formats.	3 Communicate scientific information
6 Relate science to personal, social or global impact.	5 Apply scientific thinking to real world problems