

# Santiago Canyon College

Department: Earth, Space and Physical Sciences (Chemistry) Year: 2009

Semester: S09

Dept Review Sub-report for Sections C – D on SLO Assessment (Chem 119)

1) Outcome to be assessed by dept members	3- Use the language of modern chemistry, including chemical symbols and chemical equations, to explain chemical events and processes to others in a clear and coherent manner.																																		
2) Means of assessment and criteria of success	The assessment assignment was developed as a course embedded assignment with a rubric to score that assignment. The assignment probe their ability to identify chemical formulas and translate it into names followed by identifying the type of reaction involved. Only one section was tested as only one section was offered in S09.																																		
3) Summary of data collected	<p>No students = 12 students No sections = 1 section</p> <p>Only 12 students took the assessment. The table shows the average score.</p> <table border="1" data-bbox="671 1095 2511 1882"> <thead> <tr> <th rowspan="2">Rubric Components</th> <th colspan="4">Point Scale</th> <th rowspan="2">Students Average Score</th> </tr> <tr> <th>4</th> <th>3</th> <th>2</th> <th>1</th> </tr> </thead> <tbody> <tr> <td>chemical formulas of reactants.</td> <td>Student provides all the formulas correct of the reactants. This might require internet research.</td> <td>Student provides most chemical formulas correct of the reactants. May not have used internet research.</td> <td>Student provides some correct chemical formulas. Student did use research.</td> <td>Student did not provide correct chemical formulas for reactants.</td> <td>4</td> </tr> <tr> <td>Predict the type of the chemical reaction.</td> <td>Based on type of reactants, student predicts what type of reaction.</td> <td>Based on types of reactants, student may be able to predict what type of reaction.</td> <td>Student could not predict most types of reactions.</td> <td>Student could not predict type of reaction.</td> <td>3</td> </tr> <tr> <td>Correct chemical formulas for products.</td> <td>Student provides correct formulas of products.</td> <td>Student provides most product formulas correct.</td> <td>Student provides some correct chemical formulas of products.</td> <td>Student did not provide correct chemical formulas for products.</td> <td>4</td> </tr> <tr> <td>Balanced chemical equation.</td> <td>Student balances the chemical equation.</td> <td>Most chemical equations are balanced.</td> <td>Few chemical equations are balanced.</td> <td>Chemical equations are not balanced.</td> <td>4</td> </tr> </tbody> </table>	Rubric Components	Point Scale				Students Average Score	4	3	2	1	chemical formulas of reactants.	Student provides all the formulas correct of the reactants. This might require internet research.	Student provides most chemical formulas correct of the reactants. May not have used internet research.	Student provides some correct chemical formulas. Student did use research.	Student did not provide correct chemical formulas for reactants.	4	Predict the type of the chemical reaction.	Based on type of reactants, student predicts what type of reaction.	Based on types of reactants, student may be able to predict what type of reaction.	Student could not predict most types of reactions.	Student could not predict type of reaction.	3	Correct chemical formulas for products.	Student provides correct formulas of products.	Student provides most product formulas correct.	Student provides some correct chemical formulas of products.	Student did not provide correct chemical formulas for products.	4	Balanced chemical equation.	Student balances the chemical equation.	Most chemical equations are balanced.	Few chemical equations are balanced.	Chemical equations are not balanced.	4
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Rubric component	No students 4 points	No Students 3 points	No Students 2 points	No Students 1 point
#1	12 students	0	0	0
#2	7	1	3	1
#3	11	1	0	0
#4	12	0	0	0

  

4) Analysis and discussion of data	<p>From this assessment, it is clear that students had no problem getting the formulas of the reactants and products and balancing equations but had a harder time classifying types of reactions.</p>
5) How your EMP and DPP planning process will utilize what was learned through the analysis of your program's assessment of learning outcomes	<p>These results indicate that the students can make the direct correlation to lecture material when answering questions but have a harder time correlating to actual life situations. More correlation between real life situation and chemical formulas must be introduced as examples during lecture.</p>