

Santiago Canyon College

Department: Earth, Space and Physical Sciences (Chemistry) Year: 2010

Semester: F2010

5/26/11

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

1) Outcome to be assessed by dept members	2- Use the models and concepts of modern chemistry to analyze and explain human body function. 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 of these 2 SLOs will be done by administering an MCQ final exam. The final exam will test their chemical knowledge in the areas indicated including chemical formulas, chemical equations, stoichiometry, concepts, and history of chemical advances. Collection of the data will follow. A discussion of the results of the assessment will follow with faculty.																																																																																																																																		
3) Summary of data collected	No students = 20 students No sections = 1 section Total no of questions = 60 The average scores was 73% <table border="1" data-bbox="599 1102 2698 1834"> <thead> <tr> <th>Question</th> <th>Incorrect %</th> <th>Question</th> <th>Incorrect%</th> <th>Question</th> <th>Incorrect%</th> <th>Question</th> <th>Incorrect%</th> <th>Question</th> <th>Incorrect</th> </tr> </thead> <tbody> <tr><td>1</td><td>5</td><td>13</td><td>5</td><td>25</td><td>50</td><td>37</td><td>75</td><td>49</td><td>40</td></tr> <tr><td>2</td><td>5</td><td>14</td><td>30</td><td>26</td><td>20</td><td>38</td><td>20</td><td>50</td><td>25</td></tr> <tr><td>3</td><td>45</td><td>15</td><td>10</td><td>27</td><td>15</td><td>39</td><td>15</td><td>51</td><td>90</td></tr> <tr><td>4</td><td>10</td><td>16</td><td>10</td><td>28</td><td>30</td><td>40</td><td>25</td><td>52</td><td>35</td></tr> <tr><td>5</td><td>55</td><td>17</td><td>20</td><td>29</td><td>25</td><td>41</td><td>25</td><td>53</td><td>15</td></tr> <tr><td>6</td><td>0</td><td>18</td><td>10</td><td>30</td><td>30</td><td>42</td><td>15</td><td>54</td><td>15</td></tr> <tr><td>7</td><td>25</td><td>19</td><td>5</td><td>31</td><td>45</td><td>43</td><td>35</td><td>55</td><td>10</td></tr> <tr><td>8</td><td>20</td><td>20</td><td>15</td><td>32</td><td>15</td><td>44</td><td>15</td><td>56</td><td>55</td></tr> <tr><td>9</td><td>15</td><td>21</td><td>30</td><td>33</td><td>45</td><td>45</td><td>55</td><td>57</td><td>0</td></tr> <tr><td>10</td><td>45</td><td>22</td><td>55</td><td>34</td><td>35</td><td>46</td><td>35</td><td>58</td><td>0</td></tr> <tr><td>11</td><td>80</td><td>23</td><td>0</td><td>35</td><td>10</td><td>47</td><td>40</td><td>59</td><td>5</td></tr> <tr><td>12</td><td>55</td><td>24</td><td>30</td><td>36</td><td>30</td><td>48</td><td>10</td><td>60</td><td>40</td></tr> </tbody> </table>	Question	Incorrect %	Question	Incorrect%	Question	Incorrect%	Question	Incorrect%	Question	Incorrect	1	5	13	5	25	50	37	75	49	40	2	5	14	30	26	20	38	20	50	25	3	45	15	10	27	15	39	15	51	90	4	10	16	10	28	30	40	25	52	35	5	55	17	20	29	25	41	25	53	15	6	0	18	10	30	30	42	15	54	15	7	25	19	5	31	45	43	35	55	10	8	20	20	15	32	15	44	15	56	55	9	15	21	30	33	45	45	55	57	0	10	45	22	55	34	35	46	35	58	0	11	80	23	0	35	10	47	40	59	5	12	55	24	30	36	30	48	10	60	40
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4) Analysis and discussion of data	<p>Only 6 students scored below 60 % on the final (answered less than 36 questions correct). The data also shows that in 5 (compound definition), 11 (colloid definition), 12 (charges of polyatomic), 22 (Lewis structure of SO₂), 25 (Lewis structure), 37 (specific heat capacity), 45 (Dehydration of 2 alcohols), 51 (amide hydrolysis), and 56 (formulas).</p> <p>These results indicate that students have more problems with concepts than calculations. A weak point in the understanding is drawing Lewis structures and understanding geometry and polarity.</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 needed understand definitions of certain words rather than memorize the definition. More time should be allocated to Lewis structures and geometry of molecules.</p>